



Challenge

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letters TO THE EDITOR

*Challenge invites your comments. Address letters to
Challenge, 475 Fifth Avenue, New York 17, N. Y.*

The issue of taxes

•Much as I applaud the excellent job you did on your issue on taxes [CHALLENGE, March 1957], I must take exception to your inside back cover. The *Journal of Taxation* [a national journal of current news and comment for professional tax men] has subscribers in every state and many foreign countries and always devotes all its pages every month to taxation!

WILLIAM S. PAPWORTH
New York, N.Y.

Touché, Editor Papworth. But when we said, "to our knowledge, this is the first time a nationally circulated magazine has devoted all of its pages to the single subject of taxation," we had in mind general magazines, not trade and professional journals.—Ed.

•The article, "Ethics for Taxpayers," by Harry J. Rudick in your March issue, placed the burden of blame for tax avoidance on national and state legislators. [Mr. Rudick] said: "The fault is to be traced to government officials and legislators who continue to advocate and adopt a tax rate which is so steep and reaches such high levels that they

find it necessary to resort to special tax concessions to make the economy more viable than would be possible were there no relief from the highest rates."

It seems to me that Mr. Rudick is missing a very important point. Perhaps the tax rates are so high because the legislators anticipate that taxpayers will succeed in avoiding tax payments to such an extent as to appreciably lower tax revenues. Perhaps the legislators jack up the tax rates to make up for the money lost by tax avoidance.

RICHARD DERFER
Spokane, Wash.

•Having digested much of the valuable tax information in your March issue, I was especially pleased to come upon "Ethics for Taxpayers." For, it dealt with the whole subject as it hits me. Year after year, I ask myself whether to take the full 10 per cent deduction for charity when I may not have given away that much. And every year I boil over with anger at the realization of how few people pay their state tax.

The setting of tax cheating and avoidance in a realm wider than the strictly personal is valuable, not simply because it becomes less of a

mere annual cause for teeth gnashing, but because it provides an approach for the individual voter towards bringing about a change—albeit far in the future.

ELIZABETH AKIN

Ogdensburg, N.Y.

•Your March issue was excellent. Let's have more.

ALVIN C. HIRSCH

Brooklyn, N.Y.

•Your issue on taxes was a very comprehensive and constructive analysis of the reasons why the tax structure is rising on a federal, state and local level. No one has yet figured out whether we're getting our money's worth, however.

JAMES M. CHESTER

Los Angeles, Calif.

•Although I enjoyed several articles in your special issue on taxes, I wonder if it is not a little overbearing to devote an entire edition of a magazine to a single subject, no matter how important that subject may be.

EDNA BUBNS

Kansas City, Mo.

•I read your March issue with great interest and pleasure. I especially enjoyed the article, "Life Under Taxes."

Keep up the good work.

THOMAS JANSEN

Chicago, Ill.

Impressing the neighbors

•The claim of the hucksters along Madison Avenue that the automobile "has ceased to be a prestige symbol to impress the neighbors" [CHALLENGE NOTES, March 1957], is a hollow one at best. Their own copy refutes such a theory.

True, most American families own a car; a few even own two or more. But how about the ads we read today which extol the virtues of a host of "extras" which can be had at "nominal cost?" And how about:

"The dream car ride"; "the wonderful world of autodynamics"; "America's number one road car"; "for the man who can afford the finest"; "the forward look"; and so on, *ad infinitum, ad nauseum*.

CHALLENGE hit the nail on the head when it said: "as the nation gets wealthier, impressing the neighbors becomes tougher."

SAMUEL BAKER

Detroit, Mich.

Overtime figures

•In his article, "Overtime," Melvin Lurie suggests taking a long, hard look at the figures pertaining to the amount and value of overtime work as compiled by the Bureau of Labor Statistics to find out what they really mean. At a glance, they mean he has misstated the Bureau by using the figure 10.5 as a percentage of gross wages based on seven per cent of all hours worked being compensated for at one and a half times the regular rate.

JAMES T. WOODS

Altoona, Pa.

Neither Dr. Lurie nor CHALLENGE has misstated the Bureau of Labor Statistics in this matter. Our interpretation is based on the assumption that overtime is generally paid at a rate of time and a half. Therefore, if seven per cent (the Bureau's figure) of all hours worked in manufacturing were overtime, then seven plus 3.5 (representing time and a half) comes to 10.5 per cent of gross wages paid.—Ed.

a personal note

from the editor

*"cleaning house" will not slow
the pace of union demands*

THE labor union movement in this country has reached an important milestone. For the first time in almost a generation the movement as such is on the defensive, because increasing evidence is being put before the public which indicates that some unions at least have fallen into sloppy administrative habits. There is a very strong possibility that, if the allegations prove incontrovertible, some legislation seeking to govern union administration will come into being.

The unions will be sensitive to any such attempt. They are obsessed with the fear, perhaps understandably, that attempts to regulate or otherwise control the handling of union funds, for example, will eventually snowball into outright interference and limitation of their rights to organize, to bargain and to strike. Indeed, there is the widespread fear that the so-called "right-to-work" laws will become universal within the federal structure.

What will the unions do now? The first obvious move, one which the parent AFL-CIO has already taken, is for the unions to set their own house in order. If this can be done rapidly enough and effectively enough, it would be a relief to many members of Congress; for there are few in that legislative body who want to lower the boom on labor with a vengeance. Therefore, it does not seem too much to assume that if the AFL-CIO can effectively bring the disreputable units under control, or at least bring about a disassociation between the main body of organized labor and the malpractices of the more notorious unions, then the union movement as a whole will escape without too much legislative control.

In this connection, what happens or does not happen personally to Dave Beck of the Teamsters' Union will not be as significant as what happens to Walter Reuther of the United Automobile Workers.

Reuther is a personable man. He looks like the kind of man who should be a union leader, because he is clean-cut in appearance, he speaks well, he puts his arguments in terms of economic statistics

which serve his viewpoint, and no one as yet has offered proof that he has used his position of union leadership for his personal gain. No sooner had the storm broken over Beck's alleged activities than Reuther was at the forefront of those who wanted the unions to clean house. He moved to set up a watchdog committee, made up of men outside the labor union movement, to evaluate the practices of his own UAW. Then, having done that, he announced at the Atlantic City meeting of the UAW early in April that in 1958 he would begin the drive to secure a four-day week for his auto workers. Now, this is interesting because evidently Reuther thinks that he and his union will come out of the present review of union activities with reputations sufficiently unbesmirched to bargain effectively on behalf of an admittedly big demand—one which no industry can meet today.

Undoubtedly, Reuther and the United Automobile Workers will be well armed with the economic facts and figures which prove to the satisfaction of the union that a four-day week in the automobile industry is feasible. Also, undoubtedly, the automobile manufacturers will have a set of figures which will prove that a four-day week is not feasible. Who will have the right set of figures? This will have to be arbitrated. But there are other important matters to be considered.

The really big question is whether the country can afford to have a four-day week precedent set in 1958. The UAW has a membership in excess of one million workers. Can the other 63 million people in the labor force get a four-day week? In other words, can the country take a 20 per cent cut in the hours of work without suffering a 20 per cent cut in the national product? Either Reuther must be willing to admit that he wants to make economic royalists of his auto workers, or he thinks he is blazing a trail for all workers in the production industries to follow.

But all workers are not in mass-production industries. The economics of all businesses and industries are not such that they can take a general 20 per cent cut in working hours without affecting production, or the price of that production. A cut in the number of hours worked will almost certainly push up prices substantially. Reuther may think that the automotive industry is automated to a degree that it can afford to pay five days wages for four days work; but other industries certainly are not. At this writing it would seem that Reuther is blazing a dangerous trail too soon. Perhaps he is gambling. He has shown us one card. He might have another which says "five days a week, seven hours a day."—H.B.



Challenge Notes

Keeping the Kremlin out of the "red"; the "common" market

WHEN Nikita S. Khrushchev recently announced that the Soviet government would freeze repayment (and suspend interest) for the next 20 years on state loans worth 260 billion rubles—about 65 billion dollars at the official exchange rate—he predicted that “capitalists” would misinterpret the government’s action. To the uninitiated, he implied, it might look like a gigantic swindle, which in fact deprives millions of middle-aged Russians—who cannot expect to live until 1978, when the government says it will resume repayments—of their lifetime savings. Good socialists, he felt confident, would see the move as an ingenious way of keeping the government out of the red. That is how Khrushchev sees it.

We doubt whether the Russian people will see it that way. For years, Russian workers have been forced to purchase government bonds through payroll deduction

plans—deductions which have averaged from six to eight and a half per cent of their paychecks. Now, the government suddenly tells them, they will have to wait (if they can) another 20 to 25 years before the government will repay them—without the promised interest. In capitalist countries, this sort of thing is known as bankruptcy. A company which cannot meet its obligations finds itself out of business. A government which reneges on its trust does not remain in power for long.

In the Soviet Union, however, things are managed differently. For, the state controls the legal machinery, the police and the army—and it intends to use them. Khrushchev apparently feels powerful enough to think that he can get away with it. He has even come up with a “solution” to the national debt problem: just forget about it. There have been occasions when Western governments have felt the

same way, but they have never gotten away with it, thank God.

A momentous step

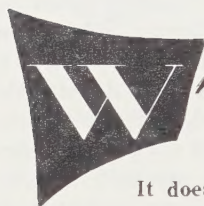
THE Prime Ministers of France, West Germany, Italy, Belgium, The Netherlands and Luxembourg took a momentous step last March when they agreed to pool their atomic resources (Euratom) and join what will eventually be a common, tariff-free market. Many observers believe this will be the first step in the creation of a United States of Europe. And that, many experts believe, is the only way Europe can be sure of a prosperous and secure future.

We agree. On the other hand, Europe is still a long way from true economic integration. At present, such integration is mainly in the paper stage, although the Benelux (Belgium, The Netherlands and Luxembourg) Customs Union and the European coal and steel community have been important, if hesitant, steps in that direction. As for the agreement signed last March, this still has to be ratified by the parliaments of the member nations. Even assuming that the agreement is approved, it will be at least another year before the treaty can be put into effect. And it will be at least 12 years after that before Europe will have something that can be described as a *common market*.

Unfortunately, this is not the only problem. Most experts agree that the common market cannot be completely effective without the participation of England, who has so far refused to join, although she recently indicated willingness to modify this stand. Then there is the problem of what to do with the colonial territories of the various members. Should *they* be included in the common market? Finally, there is the problem of what to do about agricultural products. Countries like Great Britain, who depend upon Commonwealth and Argentine food imports, cannot afford to join a common tariff bloc for farm produce.

There are many other important questions. For example, some economists (notably, Dr. Ludwig Erhard, West Germany's Minister of Economics) fear that the proposed European community will encourage more public regulation and private cartelization of Europe's economy. Others—especially the U.S.—fear that a common market may attempt to discriminate against their exports to the detriment of their foreign trade.

These are very real problems, but they are not insoluble. In any case, the movement toward a common market must be a slow and gradual process. And time is definitely on the side of those who advocate a United States of Europe.—M.K.



When Big Business Decides

It does not always follow the economics "book"

by Irwin M. Stelzer

EVENTS of the past few months serve to highlight a very important change which has occurred in management decision-making in recent years. Broadly stated, two new factors have come into play in influencing price and output decisions: (1) noneconomic considerations, and (2) considerations of the impact on the general economy of a firm's price-output decisions. The textbook businessman who maximizes profits through a series of cost-price calculations must be viewed with a good deal of envy by his giant counterparts in General Motors, Standard Oil of New Jersey, and other large-scale business firms.

The importance of the two factors mentioned above has recently been reflected in such apparently unrelated events as the Senate's investigation of crude oil price in-

creases, the President's controversial plea to big business and big labor to join in a voluntary anti-inflation program, and the re-examination by large corporations of their capital spending plans with a view toward determining the impact of these programs on the general economy.

The intrusion of noneconomic factors into the pricing output and investment decisions of business (especially big business) is not, of course, an entirely new phenomenon. But it is only recently that these considerations have begun to receive equal, or perhaps even greater, weight than purely economic factors. The pricing of crude oil provides a perfect example. For many months before the recent increase in crude oil prices, oil industry executives—with the possible exception of

those in the struggling nonintegrated refinery sector—had complained of rising costs, the increasing dry-hole incidence, and so on. Why, then, did they not simply raise the price of crude oil?

What happened *after* the increase finally went into effect may help to explain the reluctance of the industry's pricing strategists to do what *they* felt, rightly or wrongly, was indicated. The ink was barely dry on the new price posting when several Senate committees began to scramble for the right to investigate the increase. And, although a valuable discussion of many important issues has resulted from the investigations which have followed, it is quite clear that the purely economic factors behind the increase received little attention. Rather, such issues as the political impact of the price rise in France, its impact on Anglo-American relations and the role of oil companies in forming Middle Eastern foreign policy, captured the spotlight.

The clear implication was that the oil companies *should* have taken such facts into consideration in reaching what has heretofore been a simple economic question: Should prices go up? Such an implication, however, must be given careful consideration before

we rush, pell-mell, into accepting it. We cannot criticize oil companies for attempting to influence foreign policy and *at the same time*, demand that they take foreign policy considerations into account in making price-output decisions.

There are other areas of business decision-making which have increasingly come under the influence of noneconomic factors. It is usually assumed, for example, that a large firm generally tries to obtain its supplies at the lowest price consistent with quality and assured delivery. Yet N. R. Danielian, in his study of the American Telephone & Telegraph Company, reports that it was not unusual for that company to award contracts to the *highest* bidder with the notation "due to local political reasons." Such behavior, it should be noted, is not immoral just because it is not in line with the type of behavior traditional theory leads us to expect. "Though widely denounced as immoral," notes Norton Long, of Harvard University, "the attempt on the part of business management to insure itself against changes in the political framework—a framework which it must, to a large degree, be able to take for granted if it is to concentrate on its more orthodox economic tasks—seems as logical as insuring against fire or flood."

Irwin M. Stelzer is senior consultant at Boni, Watkins & Jason Co., Inc., economic consultants.

Another interesting example of noneconomic factors which are considered by today's businessman is revealed by the advertising programs of many large firms. In addition to seeking maximum dollar returns for their advertising dollar, businessmen admittedly advertise in places calculated to influence the editorial policy of newspapers. Similar considerations also influence companies in their selections of local attorneys, banks, and so on.

Not a new practice

Of course, this type of practice is not new. The placing of advertising, particularly, has long been done with a view towards influencing editorial policy. Of course, it may well be that today's large national newspaper, with its thousands of advertisers, is relatively more immune to pressures from a single large advertiser than the hundreds of smaller papers of several years ago. Nevertheless, certain facts do remain. First, there are in this country hundreds of small, local daily and weekly publications quite dependent upon advertising revenues from relatively few sources. Second, the similarity of interests that are characteristic of large advertisers—U.S. Steel, Du Pont, and General Motors executives are likely to hold similar political-economic viewpoints—sometimes means that

even a large newspaper which antagonizes one risks losing all. Besides, the high fixed costs characteristic of newspaper publishing are not conducive to an editorial policy which may drive away even apparently small amounts of revenue.

A final noneconomic factor in business decision-making is the broad range of public relations considerations ignored by the managements of an earlier day. It would obviously be *economic* for Consolidated Edison to ignore the problem of smoke control, or for a refiner to pollute the stream on which his plant is located. After all, the costs of smoke control and purification of waste waters are substantial. Yet the Atlantic Refining Company, which draws in water from the Schuylkill River, actually returns to that river water which is cleaner than that originally drawn off—a fact demonstrated for all visitors to Atlantic's refinery by the tank of "pure waste" water filled with thriving fish.

The implications of such a sensitivity to public pressure are clear. The business costs formerly borne by society as a whole—so-called social costs—are now increasingly borne by the businesses themselves. We are, in other words, witnessing a movement towards a greater equivalence of economic and social costs. Thus, whereas

society formerly bore the cost of cleaning polluted streams, business now counts the prevention of such pollution as a dollar cost to be covered in the same manner as wages, rent and materials outlays—out of the gross income of the firm.

In addition to this broad range of noneconomic factors, businessmen must also consider the impact of their price-output decisions on the economy as a whole. In the words of the economist, the entrepreneur must consider the macroeconomic impact of his microeconomic decisions. In the words of the layman, the businessman must give weight to the impact, on such broad economic aggregates as national income, the over-all level of prices and employment, etc., of his decisions regarding the future course of action of his economic microorganism—the firm.

Effective demand

This is something fairly new. Certainly, the small manufacturer of the 19th century economy paid little attention to the income-employment consequences of his decision to cut his production by, say, 10 per cent, or to postpone his expansion program for a year. For the large industrial giants of today, however—dependent as they are on a continued high level effective demand for their massive outputs—it is a different story.

A quick look at capital spending during the last quarter of 1956 will illustrate this point. *Business Week* (December 8, 1956) estimated that capital expenditures by all manufacturing establishments approximated 4,408,000,000 dollars in that period, and that outlays by automobile producers represented 484 million dollars of that total—that is, about 10 per cent. Assuming that GM accounted for roughly half of the auto industry's total outlays (the firm produces about 50 per cent of the industry's cars), we can estimate that capital spending by that one firm represented in the neighborhood of five per cent of the total of such spending by all manufacturing firms. Surely GM's management was aware of this, and surely it could not help but realize the terrific impact any change in these plans would have on incomes and purchasing power in general, and on demand for automobiles—preferably, of course, GM automobiles—in particular.

Executives of large corporations, as well as the several Doctors of Economics now roaming widely (wildly?) through corporate and government bureaucracies, are well aware that "the country may catch pneumonia if GM—or GE or Standard Oil—sneezes." This realization is best demonstrated by the following remark made by the Chairman of

the Board of Standard Oil in announcing a new expansion program. "We expect," he said, "that a substantial by-product of our actions will be its beneficial effects upon the economies of many countries and on world trade generally."

Spreading risks

This awareness by big business of the economy's dependence on its decisions may stem, in part, from the increased realization that the welfare of the business sector of the economy is inextricably bound up with that of all other sectors. It must be remembered that today's corporations are not only large, but highly diversified. In their desire to spread their risks, many firms have moved into fields almost, if not completely, unrelated to those in which they originally operated. In essence, these firms have attempted to achieve immunity from a downturn peculiar to one line of business by expanding into as many lines as possible—a fact which results in in-

creasing dependence on *general* economic conditions.

Thus, a firm producing synthetic textiles can obtain some relief from a cycle, which has seen business fall off in most even-numbered years since 1920, by diversifying into several lines. In this way, its dependence on the performance of one industry is reduced, while its reliance on the over-all level of demand and prices in the economy is increased.

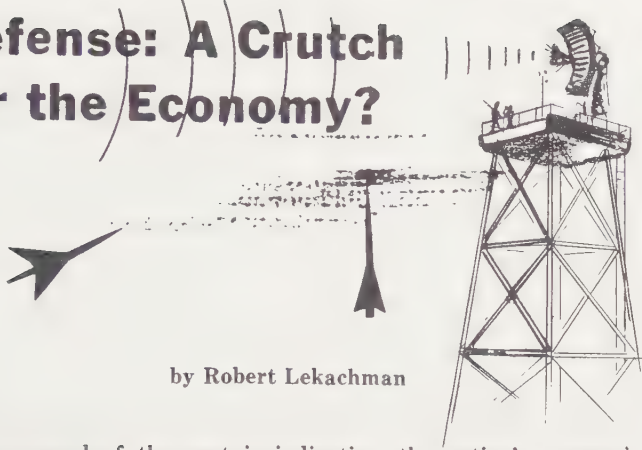
These developments do *not* mean, of course, that all-wise executives, now acutely aware of all implications of their decisions, will set price and output at levels designed to maximize *national* income and employment. For one thing, we do not yet know whether big business tends to restrict output in order to maintain price in the face of falling demand. The trends sketched above *do* indicate, however, that *other things being equal*, business decisions may increasingly be on the side of a maintenance of full-level employment and purchasing power. ■



A Pair of Giants

TODAY businessmen must "consider the impact of their price-output decisions on the economy as a whole" (*see page 11*). A glance at the magnitude of sales and employee statistics of two industrial giants—General Motors and Standard Oil of New Jersey—for 1956 shows why: GM's net sales for that year were 10,796,442,575 dollars, and it employed 599,243 persons; Standard Oil's net sales were 7,281,883,000 dollars, and it employed 156,000 persons.

Defense: A Crutch for the Economy?



by Robert Lekachman

If the record of the past is indicative, the nation's prosperity does not necessarily depend upon defense spending

ECONOMY-MINDED budget trimmers in Congress are now paring down the largest peacetime budget in the nation's history. Their scalpel, however, is not expected to leave any deep, painful scars upon the heaviest of government spenders—the defense establishment. Little nicks may be made in the Army, Navy and Air Force requests for funds, but most of the 41.6 billion dollars these forces asked for will probably be handed over without too many Congressional objections.

National security expenditures have been practically inviolable for the last six years, during and after the Korean war, in the period of unparalleled national prosperity. Some 264 billion dollars have been spent by the government in that time to maintain and equip the

men under control of the Department of Defense.

How important has this defense spending been? Has it propped up the economy and stimulated the boom? And, if and when *real* peace comes, will a sharp reduction in defense spending cause a contraction in gross national product and employment? Such questions are being flung at economists with greater rapidity and more forcefulness as the amount of defense spending continues to be maintained at high levels.

A look at how we have used our national output since 1939 will help answer some of the questions. In 1939, nearly 1.3 billion dollars were spent to support the Army, Navy and Air Force combined. This sum was more than one per cent of the gross national product

which amounted to 91 billion dollars. By 1944, the peak of the nation's World War II effort, the military outlay had increased to 88.6 billion dollars, or 40 per cent of the GNP of 211.4 billion dollars. In 1947 this percentage had shrunk to about seven per cent. Since 1950 we have diverted between 10 and 15 per cent of total output to defense, and in 1956 the figure was almost exactly 10 per cent of the GNP of 412.4 billion dollars. Private investment has exceeded defense spending every year since 1947, except during the height of the Korean war in fiscal 1953.

Affects private investment

Of course, this scarcely measures the total economic impact of defense; for defense spending also affects private investment by enlarging the demand for machines, tools and factories—as well as consumption—and by increasing the flow of wages, salaries and other incomes. What would have happened to private spending if real peace had broken out in the world and defense spending had disappeared? Two episodes of the last 12 years cast considerable light on the problem.

The first centers upon the events of postwar readjustment. In 1945, defense spending totaled 75.9 billion dollars; in 1946 it was down to 21.2 billion dollars, a drop of some 72 per cent. This arithmetic

caused many economists to envisage severe unemployment and a sharp reduction in consumer and business spending for the winter and spring of 1945-1946. They were quite wrong. In the face of the massive need to redeploy economic resources, the private sector of the economy performed heroically. The record is clear. Gross national product diminished only slightly in 1946, and both personal consumption and private investment increased very sharply. Moreover, despite vast shifts in the composition of the demand for workers, and despite the reappearance on the scene of millions of veterans, unemployment never exceeded three million.

In retrospect it is easy to see what happened. Price controls and rationing, patriotic incentives to save and inability to spend money—as was the case with many soldiers and sailors—combined with high employment and overtime rates of pay to create a vast fund of liquid assets in the hands of both individuals and businesses. These dammed-up savings were in a reservoir of postponed demands for goods, houses, autos and appliances on the part of consumers, and for new equipment and buildings on the part of businessmen. When the government largely re-

Robert Lekachman is Associate Professor of Economics at Barnard College, New York City.

moved itself as a buyer of goods, private consumers eagerly stepped in with their resources. They displayed an amazing flexibility of taste, which enabled them to buy whatever was available while waiting for what they really wanted.

This flexibility was more than matched by businessmen. Not the least awe-inspiring aspect of the statistical record was the ability of businessmen to convert their facilities within one year to peacetime uses. Business critics severely underrated the ingenuity and adaptability of businessmen operating under the stimulus of high demand and potential profits. Optimists might suggest that businessmen could do as much again, should the current urgency of defense needs slacken.

Can it go on?

On the other hand, pessimists might say that a sudden dip in defense spending now could not be expected to produce so speedy and so painless an adjustment. The tremendous boom of the last decade has built the houses consumers craved, filled these houses with appliances and furniture and stuffed their garages with ever larger and more powerful cars. Moreover, according to the estimates of the President's Council of Economic Advisers, businessmen have increased their plant and equipment by perhaps as much as 25 per cent

since 1952. Can it go on, or is readjustment inevitable?

A second glance at the historical record indicates that pessimism may be exaggerated because of some interesting relationships in the events of the last four years. Four years ago the immediate impact of wartime savings had spent itself. Our situation was presumably more or less "normal." Since then, military spending has steadily decreased from slightly over 14 per cent in 1953 to just over 10 per cent in 1956. Moreover, the Korean war ended in the middle of 1953 and the stimulus of war, however limited, vanished. What happened to the economy? Did this reduction in military spending lead to sympathetic declines in consumer and business spending and thus in gross national product? Nothing of the sort.

In every year consumer spending expanded. Only in 1954 did private investment shrink, and then very moderately. And it soon spurted forward in the very face of further curtailment of military spending in 1955. As for gross national product, it increased tidily from 363.2 billion dollars in 1953 to 412.4 billion dollars in 1956. As the economist might put the matter, economic resources—men, material and equipment—speedily moved from less needed employments to more needed uses, and no check in the earning and spending

of income occurred. The slack caused by declines in, say, home building, was quickly taken up by increases in capital investment.

What conclusion can be drawn from this historical record? What implications for the future does the past justify? The last 12 years suggest these provisional generalizations:

- The boom has been much more a matter of private than of public spending—of an almost insatiable demand for consumer and producer goods alike, although, of course, income earned during World War II sparked the boom.

- Consumer behavior has been active rather than passive in this boom, a direct contradiction of the opinions of many economists. Consumers have done more than spend an increasing percentage of their income. Their marginal propensity to consume—their proportional spending of *additions* to their income—has shifted upward. Stimulated in part by advertising, but surely also by the needs of larger families and the increasing breadth of their own tastes, husbands and wives alike have found that the urge to spend has increased even more rapidly than have their incomes. While dangerous during an inflation, this shift in behavior will tend to limit contraction.

- Businessmen have displayed a spirit of enterprise. True, much

of their investment has been pleasantly forced upon them by expansion of consumer demand; but perhaps as much has been in anticipation of this demand, and even in an effort to create new demand by the introduction of new or improved products.

- In several respects the economy has demonstrated flexibility, not alone in its sensationally successful reconversion after World War II, but, perhaps even more remarkably, in the last five years. These years have witnessed slumps in such key industries as agriculture, automobiles and house building. None of these partial slumps has spread to a cumulative, classic pattern of business cycle downturns. Rather, when autos and construction sagged, private investment boomed, and the economy moved forward. If anything, it appears that we are having our business cycle contraction in bits rather than in indigestible lumps.

- These facts and trends suggest that defense spending, if the record of the past is indicative, is not crucial to the prosperity of the country.

The deciding element

But can we expect the past to be a dependable guide to the future? It seldom has been. And it is easy to imagine a set of circumstances in which a reduction of defense expenditures might seri-

ously affect the economy. If such a cut were superimposed upon a reduction in private investment or a slump in private consumption, then surely a downswing would be intensified. This suggestion is relevant to the current scene in which important elements of spending have either ceased to expand or have been vacillating. A sizable cutback in military expenditures in such a delicately poised situation might be the deciding element.

Conversely, if an increase in defense spending were added to expansion in private investment or consumer spending, then the impact might be severely inflationary. Presumably, the damage would be limited in contraction at least by the relatively small percentage of gross national product now devoted to defense purposes.

A further caution is in order: we must be wary of what we do not understand, even when we are grateful for its manifestations. *And we do not fully comprehend the causes of this continuing boom.* Important components of it, in particular construction, home furnishings and appliances, rest in part upon the rising birth rate. This rise reversed a long downward trend, and we cannot know whether we are now observing a reversal of that downtrend or only a brief interruption of it.

The same is true of our tremen-

dous investment boom. It depends to an important degree upon the attitudes of businessmen toward the future, and the best of market research cannot remove substantial elements of uncertainty about the profitability of any investment. Businessmen have been exceedingly optimistic and have reflected this optimism in their investment expenditures. Although we may hope the optimism continues, we cannot readily assume that it will linger indefinitely.

Should either of these impulses—consumer spending or private investment—weaken considerably, defense spending at the current rate will become a larger percentage of gross national product, and changes in such spending will become more important to our economy. At this moment defense spending represents a diversion of resources, not a series of disguised public works projects indispensable to continued prosperity. If the world ever becomes a more peaceful place, defense facilities can be shifted to more rational uses.

The events of recent years suggest that this shift can be accomplished without much governmental planning, but with some stimulation perhaps by tax concessions and transitional aid to a relatively small group of workers. The evidence is slight indeed that the price of peace is depression and unemployment. ■



AMERICA 1975

SERIES

Improved Control Over Disease

While we can predict dramatic progress, medical research in 1975 will be as great a challenge as it is today

by James A. Shannon, M.D.

PROGRESS in medical research during the past 20 years has been so great that it is tempting to predict sweeping triumphs over many diseases in the next 18 years. There are many persons who think that by 1975 we shall have:

- Conquered most of the infectious diseases.
- Learned to cure cancer by virotherapy (virsuses).
- Discovered a chemical basis for mental disease and manufactured an antidote to it.
- Developed dietary or other means of protecting blood vessels and the heart itself from disease and premature failure.

To this list might be added the perhaps overoptimistic belief that the laboratory propagation of functioning tissues such as glands for implantation will have been perfected to replace those damaged or worn out. Aside from the ob-

vious fact that such predictions herald the end of medical research, they have a much greater fault: they fail to take into account the necessarily slow pace of basic research from which really major advances come.

Accomplishments in the field of infectious diseases especially have been so spectacular in the past 18 years that it is small wonder the average layman and many scientists have come to believe that we are on the verge of conquering many of these diseases.

In 1939 the first sulfonamides were coming into use. Death rates from pneumonia and streptococcal infections were beginning to decline rapidly. Then came the antibiotics, the synthetic antimalarials, isoniazid (a coal tar derivative highly effective for the treatment of tuberculosis in its early stages), DDT and other potent in-

secticides. To many, one of the crowning triumphs of medical research in the past 18 years has been the polio vaccine. All of these drugs have helped us to increase our control over infectious diseases.

And there seems no doubt that this *control* will be further extended. But it is far too much to hope that in the relatively short space of 18 years we shall have actually *conquered* any infectious disease in the sense of having eradicated it from the face of the earth. Furthermore, as old diseases are controlled, new disease-causing agents are discovered or implicated in human diseases. Our most recent examples of this are seen in adeno viruses (causing diseases of the respiratory tract), the salivary gland viruses and the ECHO viruses, the last named from the words Enteric Cytopathogenic Human Orphan—a term that refers not to human orphans but to viruses that are “orphans” because so far they have not been identified with any known disease.

We can, however, expect new antibiotics and new chemicals for treatment of the infectious diseases. Combinations of them, now coming into use, may increase the efficacy of our therapy. New chemicals, or effective combinations of old ones, may also solve the cur-

rently pressing problem of insect-resistance to DDT and some other insecticides. Such an advance will strengthen our fight against the insect vectors of diseases, like malaria and yellow fever.

Perhaps a very significant advance against infectious diseases will come through improved immunizing agents or vaccines. Tissue culture techniques for growing viruses gave us the polio vaccine; modified and improved, they can give us immunizing agents against other virus-caused diseases.

Tissue culture techniques are presently opening up one of the most promising areas of research, one from which we may gain control over many diseases. Through these techniques we are beginning to uncover latent viruses which some doctors believe may be the causes of many little-understood disorders of the nervous system.

Other scientists cite a growing body of evidence in favor of the theory that viruses cause human cancer. This evidence comes from current research on plants and animals. Research during the next 18 years may show whether the theory for human cancers being virus-caused is true, and whether we can therefore develop more effective cancer therapy.

Meanwhile, it has also been found that through tissue culture research, some viruses have latent anti-cancer activity. (This was de-

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tected because the viruses were destroying cancer cells of human origin on which they were being grown.) In the case of one of these, a member of the Cocksackie virus group, it has been possible to enhance anti-cancer activity to the point where the virus almost *completely destroyed* a large cancer of human origin growing in a laboratory animal. While this particular virus may or may not be capable of doing the same thing to a cancer in a human patient, the principle and method can perhaps be modified, or used as is, to produce a real cancer-curing virus. If the work comes up to present hopes, we can look for such a cure by 1975.

Therapeutic chemicals

Even greater advances toward cancer control may come from another aspect of tissue culture research. The nutritional requirements of some cells have been worked out in terms of basic chemicals. Cells cultured in this way could provide a testing ground for *therapeutic chemicals* designed either to halt, as in the case of cancer cells, or to encourage growth, as in the case of cells with the power to resist poisons and foreign substance.

More important, perhaps, is the fact that with these new techniques by which pure strains of some cells can now be propagated

in a medium of known chemical composition, differences in the diet requirements and metabolism of different kinds of cells can be worked out. This could lead to precise knowledge of fundamental differences between cancer cells and normal cells. Thus, the interrelation between cancer cell metabolism and normal cell metabolism could be determined. The factors leading to transformation of normal cells to cancer cells might be discovered. Then the chemical means to control cancer, either by therapy or, better yet, by preventive measures should follow.

From similar studies of pure strains of cells from endocrine glands and other body organs, it may be possible to build tissue in the laboratory for implantation into the body. While such tissue would not have the size and shape of natural organs, such as a thyroid gland or a kidney or a heart, they would perform the same function. This possibility gives hope that by 1975 we may at least have made a start toward supplying surgeons with tissue to repair damaged or aging body organs as they now have replacements for damaged bones and blood vessels. If this hope is to be realized, however, immunologists must find ways of overcoming the body's resistance to the implantation of foreign tissue.

These are the present lines of

research that hint at one way of overcoming the problem of aging—a problem which will involve a growing proportion of our 1975 population.

Still another approach is being made, again at the cellular level, by correlating chemical changes with structural changes in the individual cells of aged animals. If and when such correlations can be made, a chemical antidote to at least some features of aging should be possible.

In addition, a chemical antidote to some mental diseases can probably be developed if there is truth in the present theories of a chemical basis for such a disorder as schizophrenia. Discovery that a chemical, familiarly known as LSD, produces in normal persons symptoms resembling those of a schizophrenic has intensified research along this line. The fact that LSD has an antagonist in a naturally occurring body chemical, serotonin, adds to the promising aspect of this research. Yet it may take 18 years before the chemical basis for mental disease can be learned—if such a basis exists.

Looking ahead to 1975, we can assume that we shall improve our control over diseases by improving our present methods—by developing better drugs, antibiotics and vaccines.

We may, however, see an entirely different kind of preventive and

remedial medicine being practiced. There are trends now pointing that way. More and more, our basic research is showing the importance of enzyme chemicals normal body processes and in the abnormal processes we know as disease. It is conceivable that our future drugs may be made of enzymes to augment those lacking in disease states, or to counteract an overabundance of others.

Another trend that may change greatly the kind of measures used to improve health is reflected in the increased emphasis on the study of constitutional make-up. This goes further than relating disease susceptibility to body build. It penetrates to the genotype, or fundamental hereditary constitution of an individual in terms of the combination of genes he has.

Extrinsic factors

This might lead to an entirely new kind of preventive medicine. Where now we are happy with each new test for early detection of a disease such as cancer or diabetes, we may in the future have means for detecting with accuracy the persons likely to have a disease long before its earliest signs develop. Then we should be able to protect such individuals from the extrinsic factors that would endanger their health and lives.

Identifying these extrinsic factors may not be as easy as it now

seems. We have strong clues pointing to the role of fats in atherosclerosis (a type of arteriosclerosis), of obesity in diabetes, of certain chemicals in malignant disease. We have already discovered the danger of too much oxygen in the environment of the newborn.

Our environment is rapidly changing, however. While the increased speed of travel between continents has increased the problems of controlling communicable diseases, space travel now contemplated will bring with it entirely new problems. In fact, a new medical specialty, that of "space medicine," is now developing. Developments in this field in the next 18 years may rival our antibiotic and vaccine developments of the past 18 years.

Of grave concern is the change in our environment threatened by ionizing radiation. Apart from any future military use of such radia-

tion is the problem of increased fallout of radioactive materials from weapons development programs around the world. In a very recent and comprehensive study on the fallout of strontium-90, it is calculated that by 1970 the amount of this cancer-causing radioactive substance in the bones of humans will be 10 to 20 times greater than it is today. While this is said to be well below the maximum permissible concentration, there is a disturbing feature in the fact that the growing bones of young children pick up much larger amounts of the radioactive strontium than do adult bones. Any consideration of health problems in 1975 must include such new factors.

While we can foresee trends and confidently predict progress, especially along certain familiar lines, we can be equally certain that medical research in 1975 will present as much of a challenge as it does today. ■

Versatile Pharmacists

THE Columbia University College of Pharmacy recently gathered together some 500 pharmacists, pharmaceutical manufacturers and educators, to discuss the Bobst-Columbia Plan for Pharmaceutical Education. The Plan, which was initiated by Elmer H. Bobst, chairman of Warner-Lambert Pharmaceutical Co., Inc., would offer a series of five-year courses to train pharmacists not only to sell drugs and compound prescriptions, but also to cope with the surgical and sick-room supply business. The training might lead to ambulance operation and oxygen tent service, performance of routine clinical pathology tests and even to becoming a registered laboratory technician. If the Plan goes into effect, future students of pharmacy could specialize as technologists, hospital pharmacists, medical detailers or retail pharmacists.



AMERICA 1975
SERIES

The Cost of Medical Progress

Continued advances in the conquest of disease will add to the cost of clinical and public health programs

by Edwin L. Crosby, M.D.

PROGRESS in medicine during the past decade has had a dramatic effect on health care. On the one hand, it has eliminated many costly health problems. Surgery and chemotherapeutics have closed many tuberculosis hospitals. The polio vaccine may well eliminate the need for special facilities and equipment for this type of patient. The tranquilizing drugs promise great changes in the care and treatment of mental illness. Antibiotics have made hospitalization for many infectious diseases unnecessary.

At the same time, however, progress in medicine has imposed new demands upon our health services. Eye, bone, skin, even blood vessel banks have arrived on the hospital scene. Radioisotopes are being applied in thrilling, hopeful new ways. Blood transfusions are commonplace. Won-

drous rehabilitation services, promising useful, productive lives for the handicapped, are growing. This progress will no doubt continue.

As more funds are poured into basic research, and as the number of competent investigators swells, one may reasonably anticipate that the major forms of cancer will be curable, if not preventable, within 25 years. Startling discoveries in the cardiovascular and mental illness fields can also be expected. Vaccines have already been found for five of the 50 known diseases caused by viruses. New knowledge, relating to prevention of multiplication of the virus within the cell, points to new vaccines for these diseases which at present cost us five billion man-days annually. An increasing application of electronics to the instrument field will introduce many ingen-

ious devices, such as those for scanning the excreta of bodily cavities, and perhaps even remote control instruments for microsurgery. Further development of heart-lung machines, artificial kidneys and hypothermic anesthesia will make surgery even more dramatic and beneficial than it is today.

But progress has a price. Medical research grants us miracles and, without pausing, pushes off in new directions, leaving us with the complex and costly problem of bringing the benefits of these miracles to the population at large. There are already gaps—forced by lack of resources, personnel and organization—between what we know and what we are able to provide. Keeping this gap as narrow as possible is our real challenge.

The personnel problem

What are these gaps? Most important, perhaps, is the need for training the professional and non-professional medical personnel. This should be a matter of grave public concern.

At present, medical schools, pressed to train more and more physicians, are finding it harder and harder to obtain the necessary funds. And without places for them, candidates for medical schools are turning to other pursuits. It has been estimated that by 1960, we shall have a deficit of

between 22,000 and 45,000 physicians. Somehow we shall have to find one billion dollars to create the 30 new medical schools needed to prepare doctors for our 1975 population and to modernize existing schools.

Many people complain of a nursing shortage. Others say there is no shortage; the supply of graduate nurses is just not being properly utilized. Clearly, a nationwide analysis of unfilled nursing personnel demands is imperative if sound plans to meet future needs are to be formulated.

Meanwhile, looking forward to 1960 and 1964, the estimated number of 17-year-old girls in the total population jumps tremendously. If the number of girls entering nursing from this pool remains at the present ratio of 40 per 1,000, the influx of students will be beyond the capacity of our existing nursing schools. Building the classrooms, supplying the equipment and most importantly, preparing the skilled nursing educators to give these girls their instruction is a large problem.

Today hospital care demands a whole complex of professional, technical and administrative skills. For example, there are some 30 paramedical specialties—dietitians, pharmacists, medical and radiological technologists, physi-

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cal and occupational therapists, medical record librarians, medical social workers, psychiatric social workers, etc.—which perform vital functions to good, comprehensive patient care. At present, shortages in these specialties can only be described as acute. Much remains to be done in expanding educational programs and in recruiting persons for these important fields.

Need for facilities

Another gap is the need for hospital facilities. Since only one-third to one-half of the modern hospital is devoted to bed space—the remainder being used for supportive services and equipment—the cost of creating one new bed is roughly 17,000 dollars. Therefore, to erase the existing deficit of 800,000 beds would require an expenditure of approximately 13.6 billion dollars. By 1975, another estimated 235,000 beds costing approximately four billion dollars will be needed for our projected population of 222 million. These figures, sizable as they are, do not include sums that will have to be spent to modernize about half our existing hospitals which have been outmoded by changing concepts, procedures and techniques.

This investment in physical plant must be met. We cannot rely upon research advances to wipe out these needs. Suppose some dramatic gain were made against

cardiovascular disease. It would not greatly diminish our need for beds. Rather, the use of these beds would shift to another purpose, say to provide care for our older citizens. At present this group comprises only 8.4 per cent of the total population; yet it occupies 20 per cent of the hospital beds in all categories. By 1975, it is estimated we shall have 20 million persons over 65, an increase of 29 per cent.

Where will the money come from to close these gaps? The sums required are so gigantic that increasing allocations by the federal government are a foregone conclusion. But there are many who feel that government's stake in health is already too large, that further participation portends surrender of the reins of control to a social welfare state.

On the other hand, experience to date with federal grants to states to assist in constructing hospitals through the Hospital Survey and Construction Act has been good. The government has appropriated 884 million dollars for this program since its inception 10 years ago. Grants are not sufficient to complete building programs, but they are designed to encourage communities to raise more than half the amount of any given project. The state dispenses the grants on a priority basis.

This program has brought about

a renaissance in hospital construction. Problems in design have been looked at critically. A much-needed, orderly and systematic plan for expanding hospital facilities has been introduced. Similarly, grants made to medical education have proved their beneficial effects. Application of the grants-in-aid principle to other problem areas of health care could aid materially in closing gaps which we know to exist.

However, responsibility for health care must be a joint one—a partnership between the individual citizen, the industrial and business community and local, state and federal government. This partnership must recognize the value of our voluntary hospital system, the broad benefits it has brought to the people in the past and what it can bring in the future with proper support. In accepting the partnership philosophy, the individual citizen and the business and industrial community will find their share in the development of health services heavier and heavier. Unwillingness to shoulder this burden will lead to government control which few thoughtful citizens wish to see.

Cutting payroll costs

No miracle of medical research or administrative reform will cut the costs of medical research. Major reductions in hospital costs can

come only through cutting payroll costs which now represent 60 per cent of all hospital expenditures. Because of the personal service nature of hospital care, automation, while applicable to a limited extent, cannot produce any great savings. Developing new patterns of service, permitting more ambulatory care and requiring less personal service at the bedside will provide some economies. Experiments now underway with various types of self-help units and units in which only the levels of care needed by the patients are offered should provide some hints for future planning. Gradual transfer of patients from one type of facility or service to another, as from an intensive care unit to regular hospital inpatient facilities, from self-help unit to home care program, as the individual's condition warrants, could also result in some savings. More extensive use of the complex diagnostic and therapeutic facilities of the general hospital in serving outpatients will possibly cut the cost of in-service care but not to any major degree.

Besides, all these possible reductions will probably be erased by the cost of improvements in health care which the future holds. A survey conducted by the Health Information Foundation in 1953 showed total expenditures for personal health services, excluding

those for direct service by all levels of government, to be five per cent of all personal income. Of this amount, 10 billion dollars, 20 per cent went to hospitals; 37 per cent to physicians; 16 per cent, dentists; 15 per cent for medicine and drugs and 12 per cent for other medical services and goods. A small, steady annual increase in the cost of health services can be expected with a larger percentage of an increasingly larger total personal income going into health services.

Hospitals will become more general and will assume the role of community health centers from which preventive, diagnostic, therapeutic and home care services flow to the community. With increasing specialization and a growing realization of the interdependence of the medical disciplines, the hospital will emerge as a meeting place for the physician to do his work—providing both teaching and learning opportunities and the resources for clinical research. It will organize the equipment, services and specialized personnel to help him discharge his duties to his patient more effectively and generally raise the quality of care. Differences between the inpatient and outpatient and between the ambulatory and bed patient will vanish. Small hospitals will find it economically unsound or impossible to provide complete pa-

tient care. Hospitals will grow larger, reaching the optimum size of 500-600 beds, and the smaller hospitals in outlying towns will rely on them for services and technical advice. This development will eventually lead to an integrated and coordinated regional system of hospitals.

We shall also see the development of multidisciplinary research into all phases of hospital operation. The areas for exploration are almost endless. Which anticipated medical and technical advances will have the greatest influence on hospital design? What can we do now in planning new hospitals that will make them easily adaptable when these advances arrive two, five or 10 years hence? How can more health care be provided to more people, and how should this care be financed? How should it be distributed? What is the optimum height of a patient's bed? How can hospital and health services of a city and its suburbs be coordinated to increase the quality and availability of medical care? What can the hospital do which finds itself caught in a changing community to adjust to shifting conditions?

From studies of this sort, which have been late in coming to the hospital and health field, will come a reservoir of data to base actions for rapid, orderly and less costly adjustment to progress. ■

A program to find new uses and markets for farm produce is worth a try, especially since our present price-support system is costing billions



Farm Research Can Pay Off

I TOOK my hogs to the stockyards, and when I found out how little they were paying I just turned around and took 'em back home," an Indiana farmer said not long ago. "The prices they were offering wouldn't pay for the corn I had in those hogs, let alone all the work I'd done."

Fortunately, prices on farm products appeared to be turning the corner in favor of farmers (if not general consumers) early this year. The efforts of the Eisenhower administration to control surpluses by paying farmers to take land out of production seemed to be taking hold. Yet, few farmers, especially in the Midwest corn-hog country, will tell you that they expect any miracles from the federal government's price-sup-

port and land-withdrawal programs.

Farmers, in fact, don't like this sort of thing. They would prefer to plant their crops and raise their livestock the way nature intended, with the rewards going to the farmer who could produce the most and do the best job. But there have always been those surpluses, it seems; and taxpaying citizens who are not farmers, but who went through the terrible economic stresses of the Great Depression, have come to believe that the nation as a whole cannot afford to let one segment of our economy get into a rut.

"If the farmer goes down, we'll all go down with him sooner or later," was the way a labor leader expressed it. Thus, we seem to be

committed far into the future to policies of counterbalancing inevitable farm surpluses with government handouts in one form or another. Since the Roosevelt administration started supporting farm prices in 1933, these programs have cost more than four billion dollars, the Commodity Credit Corporation reported in February of this year. More startling was the fact that farm support payments had trebled during the Eisenhower administration. Payments during Ike's first four years were reported by CCC as being 2,894,000,000 dollars—compared with 1,111,000,000 dollars between 1933 and 1953!

Thus it appears, on a long-term basis, that farm price supports have not accomplished their purpose. Many economists believe, in fact, that price supports *encourage* surpluses by inducing farmers to produce more crops and livestock; this was the basic reason given for adoption of the present policy of paying farmers *not* to produce on part of their land. Curiously, both policies now are operating side by side—apparently in the hope that if the medicine in one bottle won't cure the farmer's economic rheumatism, a swig from another bottle at the same time

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may help. Couldn't a better long-term program be devised to handle this perennial problem of farm surpluses—even admitting that emergency aid to farmers may be necessary for the present?

"Yes," says a group of farm state and other United States Senators and Representatives who now are pushing a measure which, they believe, will eventually do more to solve this problem than anything tried so far. Companion bills in the House and Senate would appropriate 100 million dollars a year for farm research aimed at finding new uses for present farm products and, particularly, expanding industrial markets for grain, fibers, fats and oils. Senator Homer E. Capehart (R.-Ind.), a farm-owner himself, pointed out when he introduced Senate Bill 724 last January, that his 100-million-dollar figure actually is *less than one-third* the amount we now spend just to store surpluses which, as long as they exist, can have no other effect than to lower farm prices.

The measures propose that the federal government, working with state agricultural researchers, apply principles that have actually been responsible for many of the tremendous achievements of American industry in recent decades. It is not unusual, for instance, for huge chemicals manufacturers like Du Pont or Union Carbide to spend

as much as five per cent of their annual sales on new-product research. Research of this type has been largely responsible for success of our electronics and aircraft industries. Industrial research has paid off many times the amounts invested.

Can this be done for ordinary farm products like corn, wheat, beans, hogs or cattle?

Again, the answer is, "Yes." Amazing progress has already been made in this way. The development of hybrid corn, for example, has meant the doubling and trebling of yields and has added billions to national farm income. Properly exploited, such yields would not require any subsidy payments at all.

"But there's too much corn already," a skeptic might argue. Well, that's just what Senator Capehart and his supporters in Congress are getting at. "Find new ways to use this corn in industry," the counter-argument runs, "and demand for it will increase accordingly. That will tend to bring up prices, perhaps—but the farmer, the public and industry will be getting value received."

Cornstalk newsprint

Experiments at the Northern Utilization Research Branch of the Department of Agriculture in Peoria, Illinois, have shown that it is possible to make newsprint—

now in such short supply as to be a major publishing problem—out of cornstalks. These processes have not been developed to the extent that paper made from corn can compete pricewise with wood-pulp paper from Canada—but who knows what further research will do, especially if prices of Canadian paper continue to rise? (Copies of the *Chicago Tribune* have been printed on cornstalk paper, demonstrating that it can be done and the paper will stand up on the presses.)

Currently, the Northern Utilization Laboratory is working with bagasse, the fibrous residue of sugarcane, mostly from Louisiana, to produce paper and paperboard fibers. Bagasse litter formerly was burned to get rid of it; but bagasse pulped by mechanical and chemical processes can be blended with wood pulps to make a wide variety of fine papers as well as newsprint, the government researchers claim. What effect would this have? Government experts believe there is a potential market for bagasse litter of around 13 million tons, compared with 900,000 tons now utilized!

An important new use for the farmer's price-supported corn is a fiber made from a corn protein called "zein." It is blended with wool, cotton and other fibers, and already provides a five-million-dollar annual addition to the de-

mand for farm commodities. Corn-cobs can be used to produce "furfural," which is converted into an adhesive widely used in industry and, incidentally, as the glue on postage stamps. The wonder drug, penicillin, is produced in corn steepwater. Another important future possibility for corn, wheat and other grains is ethyl alcohol.

Rubber from grain

"We have known for many years that ethyl alcohol can successfully be blended with the gasoline you use in your car," Senator Capehart said recently. "If just 10 per cent of the blend was ethyl alcohol made from grain, it would require more than two billion bushels of grain a year, and there would be no grain surplus. Actually, a blend of 25 per cent of such alcohol could be used without major adjustments to the engine."

Such a list of possible products could be endless. It is known, now, that synthetic rubber can be made from grain. The process at present is more expensive than making synthetic rubber from crude oil, but research might bring these costs down. New uses are being found for animal and vegetable oils—as in paint manufacture, for instance.

Senator Capehart envisions pilot

plants at strategic points around the country, where farm products can be improved and new utilizations studied. He and his colleagues in the movement feel certain that as this work progresses, it will have a cumulative effect. Meantime, they hold to the principle that new methods and products developed in such tax-supported plants should be turned over to private industry for exploitation and further development along normal competitive lines. In the end, they believe, many of our oppressive farm surpluses will tend to disappear—just as oversupply in the Florida and California citrus industries was materially reduced by development of frozen juice products which actually saved hard-pressed orange and lemon growers.

Is this plan too visionary; its practical results too far away in the future? Not at all, say those who know most about farm product utilization research, pointing out that the same fears about Nylon or synthetic rubber were held at one time. At least, they believe, when our present policy of farm handouts is costing us billions, and the cost seems to be increasing year by year, a program to find new uses and markets for farm products would be worth trying.■

Correction

IN THE April issue, page 56, the amount contributed by corporation foundations to charity in 1953 should have read 494 million dollars.

motivation research—



It seeks to discover the WHY of consumer behavior

DURING the last ten years a new term has cropped up in the vocabulary of advertising and marketing men—"motivation research." It was coined to describe a branch of advertising research that tries to understand the motives for consumer purchasing in order that these motives might be "controlled" to keep sales up.

Whether we realize it or not, millions of Americans have felt the effects of this research on the way they spend their dollars. It is hardly an accident that automobile designs symbolize our desire for speed and sleekness; that soap powders are tinted and pleasantly scented to relieve the drudgery of dishwashing; that advertising copy assuages our guilt feelings about "taking the easiest way out" with the phrase, "Don't feel guilty,

be modern"—a key phrase in an age when change is displacing one tradition after another.

Advertising is largely responsible for the attitudes of change that have come to the fore. And it is with the help of motivation research that these attitudes have been encouraged and directed.

Though the term "motivation research" is new, the idea itself is not. In part, it is derived from the studies into so-called irrational and subconscious behavior patterns that Sigmund Freud began more than 50 years ago. But it makes use of the facts and the data of many fields of learning—psychology, psychiatry and psychoanalysis, sociology and anthropology, as well as business administration, marketing, economics, statistics and history.

It has not displaced advertising's traditional fields of research. It is used in conjunction with these traditional fields—copy, media and marketing research—or in their stead, when they seem unsuited to solve a sales problem or have proven misleading. Marketing research has always been interested in *what* and *how* people buy. But motivation research goes a step further and tries to understand the subconscious, often irrational motives—the *why*—behind consumer behavior.

Why is it, for instance, that an excellent vacuum cleaner does not sell as well as a vacuum cleaner that offers less in the way of design and engineering? The reason may be that women do not like the color of the superior cleaner; or they do not like the name. If you were to ask the purchasers directly—as you would in the traditional marketing interview—they might tell you just that. But since these reasons are in a sense “irrational,” they might not voice such objections at all for fear of appearing silly; they might pretend (subconsciously or deliberately) that the vacuum cleaner does not work as well as others. If, on the basis of such a marketing survey, the manufacturer were

The place of motivation research in advertising and marketing has long been a subject of interest to the editors of CHALLENGE.

to re-engineer his product, he would be following a “blind lead.”

When consumers can choose among a dozen competing products which are virtually identical and perform much the same function, then each product must be endowed with some distinguishing characteristic, either in actual design and manufacture or by suggestion.

The advertiser using the insights of motivation research can accomplish this in three ways. He can influence the consumer's *information* about the brand, his *attitudes* and his *behavior*. But if the consumer's responses are to be positive, the advertiser must first create a good “brand image” for his products which will lead her to establish “loyal” buying habits.

Before the advertiser can hope to create a good “brand image,” a motivation study must be designed to explore the consumer's relationship with his product and to discover how unfavorable information, attitudes and behavior may be changed for the good.

The steps involved in a motivation study are much the same as those taken in market research. Informal discussions are held first, among copywriters and layout artists, account executives and researchers. As interview data are collected and analyzed, it is especially important that this ex-

change of ideas be continued.

Interviewing techniques derived from psychoanalysis are one way in which motivation research differs from traditional market research. The "depth interview" differs in that the interviewer does not ask a specific list of questions. Instead, the respondent is asked to talk freely about whatever comes into her mind when she thinks of the product.

The projective question

Another technique is the "projective question." Here the respondent is shown a "stimulus"—perhaps a drawing of two women sitting and drinking a particular brand of wine. She is then asked to tell a story about the drawing. She might picture the women as close friends, or, as strangers who are uncomfortable together—thus giving a clue not only to the way she will react to a prospective ad, but also to the emotions she associates with the brand.

Many special advertising problems can be solved by suggestion—in advertising, in packaging design, TV and radio commercials, etc. Until a few years ago, most people thought of prunes as a cathartic. The solution? Ads illustrated prunes being used in such dishes as prune-whip pie, or as a fruit to make attractive and tasty salads and compotes.

In another case, a motivation

study discovered that among people with average incomes, perfume is thought of as a "gift" for special occasions only—birthdays, anniversaries, Mother's Day. The problem was to increase sales of perfume without depriving perfume of its aura of "something special." The motivation researcher said that the solution was to increase the occasions for buying perfumes. In order to increase the occasions, he might recommend that the ad copy suggest something to this effect—"Love is a continuous process. Don't wait for a special occasion to express your love."

Or, take the problem of the soft drink manufacturer who must continue to make an increasing profit despite today's emphasis on dieting. Acting on a hunch, a market researcher might suggest that he change the shape and design of his bottle to attract sales. But there still remains a problem. Should he bottle his beverage in short, stubby bottles, or, in tall, slim bottles? The liquid goes down more slowly in a short bottle; it might seem to the consumer that he is getting more for his money. But if he is overweight, the tall, slim bottle will appeal to his fancy for height and slimness. In this case, the motivation study has detected two governing motives for consumer purchasing—one where he thinks he is getting more for

his money, the other where the size and shape of the bottle have a fanciful appeal. Problems such as these—and their successful solution—are often of vital importance to a manufacturer's quest for new and bigger profits.

Dr. George Horsley Smith, in his book, *Motivation Research in Advertising and Marketing*, describes motivation research's contribution as successful when it accomplishes one or several of the following objectives: "provides new leads; clarifies and systemizes knowledge; confirms hunches; gives the *why* behind what is already known; or, serves as a negative influence . . . to detect damaging weaknesses in a proposal."

Thus, as an integral part of advertising procedure, motivation research is engaged in social change. In our economy of abundance, business success depends increasingly on making the *right* appeal to the consumer, whether that individual be a purchasing agent for a large manufacturing concern or a housewife.

A twofold labor

This search for the right appeal is not confined to advertising. Manufacturers — among untold other groups and organizations—employ whole teams of psychologists to find out just what promotes confidence among their workers—what sort of machine,

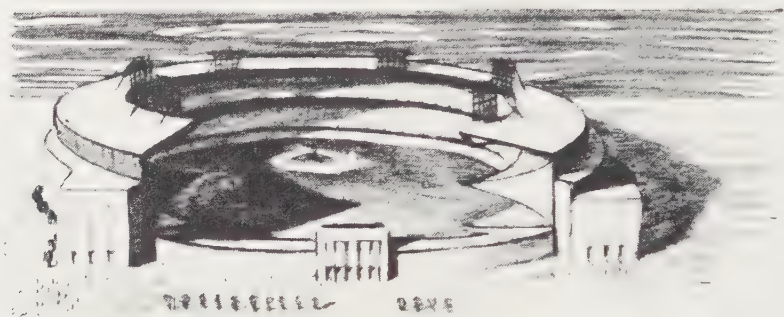
what sort of factory layout and color scheme will aid the workers' morale, and thus guarantee a profitable rate of production.

Finding the solutions to these problems is a twofold labor: first, hypotheses, hunches and tentative explanations have to be formulated; and, second, these hypotheses must be checked against the facts. Just as in any other field, there are no rules for getting hunches. The motivation researcher will get these from depth interviews, projective questioning, even from the "clear blue sky." But as a rule he will come up with hunches that can be tested and proven.

The proving stage in motivation research, as in any study, requires an adequately controlled experiment designed to test the value of research findings. Often this is not done. Often advertising and marketing men are so convinced with the results of an exploratory motivation study that they accept it as proved. This is not a limitation of motivation research, but a characteristic of contemporary American business.

On the whole, the record of motivation research has been very good. The hunches, proved or unproved, have been scoring record successes in advertising and marketing. To the typical American businessman, this is "proof" enough. ■

Will organized baseball be shut out by Congress and the Supreme Court?



Hits, Runs and Dollars

by Murray Polner

LAST SUMMER untold thousands of major league baseball fans were seriously disillusioned by the confession of one of their idols. Edwin "Duke" Snider, the Brooklyn Dodgers' slugging outfielder, flatly admitted that he played not for the love of the game, but only for the money to be made in a business dedicated to amassing money.

The Duke's brief was not very original. Ballplayers have been saying the same thing ever since Abner Doubleday's earliest graduates turned professional. The paradox, however, is that a great number of fans cannot stop thinking of baseball as simply another sport or game.

Others, however, have become increasingly concerned about the

dual nature of organized baseball. In the past seven years three major law suits, a Congressional investigation and the United States Supreme Court have attempted to cope with the dilemma: Is baseball a business that is subject to the provisions of the Sherman Anti-trust Law, or is it a game?

Up until February of this year baseball rested on the comparatively secure shoulders of a 1953 Supreme Court ruling that it was indeed, only a sport. Then came the bombshell. Professional football, also a team sport, was placed under the antitrust laws, since the Court ruled it was a business. The majority opinion of the Court even suggested that the jurists did not particularly care for their earlier, 1953 decision but felt bound by

Congressional feelings at the time.

From the House of Representatives have come new threats of investigation designed to break up the baseball franchise monopoly; to eliminate the reserve clause—whereby a player under contract or option to one team cannot freely bargain with another team for his services; and to break up, as one Congressman called it, the “horsehide cartel.”

Baseball, then, is the sole remaining professional team sport that is still legally only a “game.” But, apart from faithful fandom, nobody believes this. Detached observers agree that baseball is a comparatively big business with a net worth of about 200 million dollars, if not more, today. Sixteen clubs in the two major leagues, for example, “own” more than 3,900 players and employ thousands of park, maintenance, office and field personnel. Each club carries a huge payroll for players alone—upwards of 375,000 dollars in some instances. First division clubs also get a slice of World Series receipts. Most of all, of course, teams clear nearly 24 million dollars yearly from paid admissions and 16 million dollars—in the next five years—from the sale of radio-TV rights. In addition, almost 400,000 dollars per team is gar-

Murray Polner, free-lance writer and baseball fan, wrote this article on assignment for CHALLENGE.

nered from food and souvenir concessions.

Despite the frequently heard protest of baseball magnates that love of the sport is their primary motive, most major league clubs have been able to provide a consistent return on money invested over the last two decades. The biggest earner, the New York Yankees, took in 8.5 million dollars in that period, while most clubs earned from three to four million dollars. Philip K. Wrigley, Chicago Cubs' owner, estimated a few years ago that his club earned approximately five per cent on its investments during the 20-year span. Moreover, the Yankee owners have been known to make decidedly handsome capital gains. For example, 4.5 million dollars after taxes was their profit on the sale of Yankee Stadium and its land in return for an annual rental fee. When the Cleveland Indians were sold in 1955, 1.8 million dollars in capital gains had been realized since the team's purchase six years earlier. And the potential financial returns were so highly thought of that a syndicate recently paid 5.5 million dollars—4.2 million in cash—to secure control of the Detroit Tigers.

Baseball, however, is also a deadly serious game to spectators. From one ocean to the other, buffs are busy memorizing an assorted array of statistics. To historian

Jacques Barzun, baseball "is Greek in being national, heroic and broken up in the rivalries of city-states." To the populations of Milwaukee, Kansas City and Baltimore, when their cities received the call, it was an outlet for great emotional rejoicing and pride. To fans in Jersey City, packing Roosevelt Stadium for the privilege of booing the transient Brooklyn Dodgers, it is a chance to see a major league game. Judicial and economic considerations apart, let Dodger boss Walter F. O'Malley move the franchise to Los Angeles, and he will be hanged in effigy and his memory forever cursed by Brooklynites.

Two schools of thought

What then, of baseball's future? As a game *per se*, it is in no peril. But it is with respect to its financial status that two schools of thought have risen. The pessimists aver that it does seem to be a withering business. They point to falling attendance in an environment of general economic prosperity—total major league attendance declined by 70,011 in 1956, with the American League losing 11.7 per cent of 1955's customers. The pessimists also point to mounting overhead and salaries—100,000 dollars for Ted Williams and 55,000 dollars for Mickey Mantle—and to the arch-villain, television, which, it is claimed,

keeps people away by offering a maximum of home comfort with no traffic or stadium hazards. Further, the minor leagues are said to represent an inordinate financial drain on the parent clubs because they do not always earn a net profit and fail to draw adequate attendance. This latter fault is due, in part, to the majors' own policy of televising their games into minor league areas. Finally, those who foresee disaster in the offing fear that one day Congress and the Supreme Court *will* sound baseball's death knell by declaring it a business and outlawing its controversial reserve clause.

For, there is little doubt that the reserve clause is the foundation of the whole system known as organized baseball. If major league players were permitted to hire themselves out to the highest bidder once their previous season's contract expired, the two or three wealthiest clubs would eventually have under contract the best players available, leaving only mediocre material for the not-so-rich teams. Such a situation would find the rich teams forever winning and poor teams forever losing on the ball field. Attendance, as a result, would fall off, for few fans will support a consistent loser. But attendance of the rich clubs would also decline. Since baseball is a game played by two teams, either the inferior class of the opposition

would fail to provide sufficient interest, or the eventual financial inability to field a team would mean "no game," pure and simple. The reserve clause, therefore, ensures competition, the characteristic which makes any game interesting, and the attraction which lures fans through the turnstiles, where the real "score" is tallied.

The second group is blessed with a brighter outlook. For one thing, they say, food and souvenir concessions and radio-TV can mean the difference between red and black ink. Also, the gradual disintegration of the franchise monopoly—whereby other cities have been allowed to field major league teams—has been an enormous hypodermic at the gate. And if there are any doubts that profits are melting away, say the optimists, the Dodgers have dispelled this by proposing to invest five million of their own baseball dollars in a new Brooklyn stadium. It is, moreover, by no means certain that TV alone keeps a red-hot fan away from the scene of action. And if it were, some have suggested a remedy: "pay-as-you-see" TV, with profits distributed to all clubs, including the minors. Some advocates of this general view also contend that the sale of just one minor league star

can insure a yearly profit. Even if that isn't always true, they can refer to the 1952 Washington hearing where baseball was reported to be a hobby in the minors: of 2,287 officials and directors, only 291 made a living from baseball alone.

A similar situation prevails among major league owners today—an arrangement that led George Weiss, Yankee general manager, to consider this an advantage. "I think the big story," he said, "is in the fact that men are in baseball today who are not dependent on profits from baseball." Tom Yawkey has used his Boston Red Sox as a tax loss, and others unload profits earned elsewhere into baseball.

The only common denominator between the two groups is their apprehension about what action Congress and the Supreme Court will take against organized baseball. The entire structure hinges on coming events. Aggrieved and alarmed owners, managers and fans are now asking themselves and everyone within earshot where the game will be if its stars could hire themselves out to the highest bidder. What will happen to baseball as we know it? What, indeed? ■

"EVENTUALLY, I believe [the players] will go along with the owners and take the stand that the reserve clause is necessary to baseball."

Eddie Yost, American League Player Representative

Economics in **A**ction ---

**a moot
point**

Whether our economy is going through inflation or deflation is still a moot point; there is another possibility—that we are in a leveling-off period with considerable fluctuation. This seems the most likely interpretation when the evidence is brought into clear focus.

**industrial
production
slackens**

In the first place, industrial production has slowed down slightly (except for steel, which has recently taken an upturn), due to a continued decline in the rate of inventory accumulation by business firms. Inventories have been swollen for some time, so this gradual decline may be considered healthy, since it apparently eliminates the danger of sudden cutbacks in inventory buying. Still, the slowdown in production has also given rise to plant shutdowns, and this is cause for some concern.

**wholesale
sales
down**

Secondly, wholesale durable goods sales have declined. Sales of appliances and furniture, along with some residential building materials, continue low in concert with the continuing drop in home building; television-set production has recently been further reduced. On the other hand, activity in most capital goods equipment industries continues to advance; output of rubber products, chemicals, crude oil and soft coal have also advanced.

**auto
production
slow**

Automobile sales have finally begun to rise, although not sharply. Many dealers now feel that the usual spring activity may no longer be an integral seasonal aspect of the auto market. But auto production still lags below the 1956 level of the same period—one reason for the decline in sheet steel orders.

**wholesale
prices
mark time**

There are other weak spots: cotton cloth prices have hit an eight-year low, those of tin and cocoa are down and steel scrap continues to decline. However, sugar prices are firm and copper prices may have reached the bottom of their slump. Apparently, wholesale prices in general have stopped rising; whether they will turn downward is not yet clear. Although farm prices are going up, the farmer's rising costs may cancel out his profits.

**capital
investment
strong**

The strong spots include industrial construction which, in contrast to housing construction, has expanded to a record high. Moreover, this will very likely continue through the year, since business expects to make capital investment outlays of more than 37 billion dollars this year, 6.5 per cent above the record amount spent last year.

**corporation
financing
eases**

The high cost of money has forced businesses to finance their expansion out of undistributed profits. This, in turn, has reduced the liquidity of corporations. On the other hand, credit demands are easing, and the money market may loosen somewhat in the near future, thereby reducing corporations' internal borrowing. Another positive note for corporations is the expectation that this year productivity gains will begin to catch up with wage increases, thus easing the profit squeeze.

**personal
income and
saving rise**

Another strong force: personal income is still rising—during the first two months of 1957 it was six per cent above the same period last year. Along with this rising income, goes consumer optimism about the future. Consumers expect to spend about what they spent in 1956: to buy about the same number of automobiles, fewer new or existing houses, but to spend more for home improvement and maintenance. Moreover, consumer credit is still decreasing, debt repayment increasing. This means more personal savings, the soundest source for capital expansion.

**government
spending
high**

Consumers are not the only ones to continue a high rate of spending in 1957. The government's expenditures will also remain at a high rate, no matter what budget cuts are made, and this will serve as a cushion for the whole economy.

**employment
is up**

Finally, the number of job-holders has reached a record level of 63.9 million, although factory employment has decreased more than 200,000 since last December (a normal decrease for the period is less than 100,000).

**a middle
course**

When our economy is riding at near or full capacity as it has been, the threat of both inflation and deflation is always present. Just now, we seem to be steering a course between the two.

* * *

**big
budgets**

WASHINGTON—Wonders will never cease. For 20 years the Democrats had been labeled as the "party of spending." Then came Eisenhower Republicanism and more big budgets, which everyone said had to be cut, including Democrats. Then House Speaker Sam Rayburn, who previously had mustered the courage to declare that big budgets were here to stay, made the grand announcement that a tax cut during this session of Congress was a distinct possibility. There used to be a time when big federal budgets with heavy social welfare expenditures were considered good vote getters. Washington is clucking about the "new age of maturity" the American people have entered. The way to get votes now, it seems, is to cut taxes. As for the budget, there will be cuts in what the administration originally asked for. But 70 billion dollars is still a mark no one here expects to get under.

**calculated
risk**

Postmaster General Arthur Summerfield took a well-calculated risk when he persisted in cutting postal service because more money was not forthcoming. The

Post Office Department has been in financial trouble for some time, not because of mismanagement, but because it must sell services at less than cost. By putting the issue squarely up to Congress—"more money or less service"—Summerfield intended to provide an object lesson both to Congress and to the public. In effect, what he did was to dramatize the inadequacy of postal rates; and his action, coming as it did during the peak of discussion about cutting the administration's budget, served to illustrate that you cannot cut unless you are willing to take less. This is what President Eisenhower has been trying to say. And this is what Congress doesn't want to do too much of, even though it does want to cut the budget.

**new
look**

It is plain that when the British let us know at Bermuda that they intended to adopt a new look in their defenses, what they were doing was to admit they no longer could keep up with the arms race. This was the last stroke in the big question mark that Western Europe has been for the past four years. The low countries gave up on the arms race years ago. West Germany is only now putting together a 100,000-man army. France still pretends to keep up her armaments, but only because she will not give up in North Africa. Western Europe is very vulnerable to invasion from the east. American strategists must now think heavily in terms of intercontinental warfare—if war comes.

**sure
thing**

An isolationist reaction in this country to Britain's decision is unlikely. The Russians are seeing to that. Every announcement by the Russians of a new site for their missiles, in Hungary and the other satellites, is a painful reminder to the U.S. that a Europe abandoned to the Russians means Russian missiles launched from points farther west. This probably means more American bases in Spain, more science fiction weapons for Britain and the NATO forces. One thing is sure: no one in Washington can do very much budget cutting in the face of defense expenditures that are almost certain to keep rising. ■

Obsolete channel and cargo-handling facilities, labor problems, racketeering and inadequate public understanding—these are



America's Port Problems

by Helen Delich

THE SEAPORTS and waterways of the United States are today the focal point of the nation's economy, for more than 70 per cent of American industry depends to some extent upon raw materials from abroad.

For this reason, management insists increasingly on the ready availability of water transportation, and fabulous industries are blossoming on waterside locations like the Delaware River Valley. As a result, commercially zoned waterfront property has become more valuable than ever.

Ports are no longer thought of simply as an amalgamation of wharves and piers over which exports and imports move to and from plants hundreds of miles away. The waterfronts are now considered an important part of

any industry that desires locations to handle its own ships and cargoes directly.

A perfect example is the location of the United States Steel Corporation plant at Morristown, Pa., in a spot on the Delaware River at which iron ore from Venezuela can be discharged right next door to the giant smelting furnaces. With this plant serving as the magnet, steel fabricators and wire-rope producers have situated themselves in the surrounding Delaware Valley, to provide a heavy concentration of the steel industry there. And as the nation depends more and more on foreign countries for iron ore, other ports will find small steel plants sprouting up near their docks. At Sparrows Point, Md., the Bethlehem Steel Company is expanding

its 67-year-old plant into the world's largest.

Chemical plants, oil refineries and paint producers are a few of the other industries converting waterfronts into industrial centers. The Houston, Tex., ship channel, for example, now has more than two billion dollars of petrochemicals plants lining its shores, with another half-billion under construction. That channel in 1955 handled 47,037,718 tons of cargo, while 41,378,856 tons moved along the Gulf of Mexico intra-coastal waterway.

At the same time, these plants are exporting their finished products to every corner of the world, including many places from which raw materials originate.

With this booming international two-way trade, the nation's seaport areas are slowly being recognized for what they are and should be—the gateways to the world and a source of industrial success or failure.

As a result, the citizens of the respective areas are beginning to look with renewed interest at the problems faced by their ports. These problems include obsolete pier facilities, insufficient channels, labor troubles, dangers arising from radioactive contamination of air and inadequate public understanding.

Helen Delich is maritime editor of the *Baltimore Sun*.

Unlike European ports, American seaports were not bombed out during World War II and, therefore, have not had to rebuild their facilities in order to continue operating. As a result, Europe's rebuilt ports, particularly Hamburg and Rotterdam, are many years ahead of the U.S. in providing modern, efficient terminals. The maritime industry in the United States is plagued by out-dated facilities, some as much as 50 years old, which were built to handle the small cargoes of the sailing ship era.

In the 19th and early 20th centuries, port communities relied on private business to develop the waterfronts. But today private industry in all ports is hesitant about spending funds for modernization. The financial outlay for waterfront modernization is very high and private industry considers the return on such an investment too low to justify the expense. For this reason, public agencies are being encouraged to assume the responsibility.

It may be a step in this direction, however, that the majority of U.S. ports now function under some form of a port authority, rather than as an arm of the municipal or state government. At present there is no blanket rule for port operation or administration. Each area has its own peculiarities, and each law-making

body has its own idea about what role the port should play and establishes its agency accordingly.

The largest ports throughout the nation function either under state agencies, or under legislation established first by the state legislatures. In each instance, the specific powers are outlined by the law setting up the port authority. Those considered the best are the ones with power of condemnation, power to issue bonds, power to assess whatever charges are necessary, and power to build new facilities as needed. The authority empowered to hire employees as necessary is another asset.

Every state and city has a definite interest in its port development because vessels are attracted to those areas able to provide trade and the facilities to handle it.

Important revenues

Persons acquainted with ports know that incoming ships produce important revenues for their metropolitan area. The average ship spends about 25,000 dollars on each call at a major port. This adds up in a city like Baltimore, where more than 20 ships arrive each day; along the Delaware Valley, where 30 oceangoing ships a day are seen; and even in Charleston, S.C., where the average is five a day.

Cargoes also supply other income. A ton of sugar, for in-

stance, represents \$36.12 in revenue to an area; a ton of crude oil, \$9.67; a ton of iron ore, \$2.79; a ton of grain, \$5.24; a ton of general cargo, 14 dollars. The larger North Atlantic ports are handling more than 20 million tons of cargo a year, which means tremendous incomes from the ports.

Even so, some pessimists, especially on the Atlantic Coast, ask why they should spend money for new facilities when the St. Lawrence Seaway is going to take their business away. While it is true that the northern waterway will take away ore and grain tonnages, as well as other goods for which there is no hurry, it should be pointed out that ships are going to take from four to six weeks longer to make a round trip in the Seaway. Shippers are certain to analyze thoroughly any change in operations before they reroute cargoes to ports that will function only seven months a year—the Great Lakes' limit, due to ice. If companies can obtain good service at nominal cost on the Eastern Seaboard, they are not likely to interrupt their routine of foreign trade for only part of every year.

Furthermore, this country is expanding. Every U.S. port is now handling more freight than it did in 1949. This means that the Eastern ports can maintain their own tonnages, if they make a special

effort. Channels wide enough and deep enough to accommodate the bulk giants already on the seas—and even bigger ones in the construction stage—are one problem. Oceangoing monsters already range up to 106,000 deadweight tons and may soar to 120,000 tons. For safe maneuverability into ports, a minimum depth of 50 feet is necessary, along with a minimum width of 1,000 feet in channels. At present, only five ports (including New York and San Francisco) have that depth.

The labor problem

Some members of Congress recognize the national importance of ports improvement. Yet, getting Congress to appropriate sufficient funds once it approves a project, so that the Army's Corps of Engineers can go to work, is a major problem. For years, the Engineers have been faced with the problem of maintaining additional projects on almost the same budget they have had for decades.

Labor has been a source of dif-

ficulty along every waterfront since the days when employers shanghaied anyone who was able to work on ships or handle cargo on the docks. Even now, although there is a stable group on the docks, drifters and agitators are still attracted. Often collusion of management with an unscrupulous labor element has established practices likely to impede normal development of ports. Sometimes individual members of law enforcement agencies have themselves been offenders, by accepting bribes to look the other way. This was so in the thievery of cargoes from New York's piers, until the New York Crime Commission launched its investigation, from which has grown the bi-state Waterfront Commission. Racketeering has not been entirely stopped, and will not be stopped without further effort.

The future development of our ports depends upon the public's awareness of these problems. For without such awareness, neither public nor private operation will help. ■

Atomic-powered Merchant Ships

THE GREAT SUCCESS of the atomic submarine *Nautilus* has led Congress to authorize construction of the world's first atomic merchant-marine vessel, as well as a number of other nuclear military vessels. At present, the atomic merchant-marine vessel is expected to be completed in the first quarter of 1960, at a cost of 40 million dollars. It is to be a dry-cargo vessel, and may have accommodations for passengers. One advantage of nuclear propulsion in a cargo ship is that it has less weight and volume, thus leaving more space for paying cargo. It also makes high speeds with relative economy.

The publishers are taking a new look at their readers

MAGAZINES AND MARKETS

by Grace McGraw Smith



RECENT deaths in the family of popular national magazines have led to serious pulse-taking by publishers and editors of the survivors. Prior to *Collier's* and *Woman's Home Companion*, both shut down in December, had gone the Crowell-Collier Publishing Company's other periodical, *American Magazine*, which was suspended last summer.

Swift rises and falls of individual magazines have been a peculiar trait of the industry since its beginning. What has given publishers pause is that by the usual standards of judging a magazine's health, *Collier's* and *Woman's Home Companion* should have been able to keep going.

The popular national magazine was born at the turn of the century, when it was discovered that

it was possible to sell a magazine at less than cost and still make a profit from the advertising revenue that a large circulation would attract. And until now, if readers wanted a magazine, advertisers usually wanted it, too.

Collier's and the *Companion* each had more than four million readers, and circulation was still rising at the end of 1956, just before they both folded. However, advertising revenue kept declining, so that the magazines were operating at a combined loss of seven and one-half million dollars per year. Small wonder that the industry is now taking a more careful look at the two pillars that support popular magazines—the subscribers and the advertisers.

Of about 7,500 periodicals published in the U.S. today, perhaps

250 can be called popular national magazines. Forty-six of these each had a circulation of at least one million per issue in 1955, and the combined average circulation per issue of the top 20 was 78.6 million. They are magazines of general interest like *Saturday Evening Post*; news and travel magazines; home service publications like *Better Homes and Gardens*; women's and men's magazines; farm journals and picture, science, movie and confession magazines.

In such a diverse industry, generalizations are difficult and may be misleading; but there are certain signs of strength and weakness. One real strength is that for the industry at large, advertising is still increasing. The median rise in all advertising budgets is expected to be 10 per cent in 1957; and on the basis of first-quarter gains, magazine publishers expect to get their share, even if their advertising rates go up. Since advertising revenues have been rising about twice as rapidly as sales in the last 10 years, even during periods of recession, the general picture looks bright.

According to the Magazine Advertising Bureau, circulation is still growing, too. The average circulation per issue of the popular magazines sold in the first half of 1956 showed a 17 per cent gain over that of the same period in 1950. Since the population gain in

those six years was only five per cent, the increase in magazine readers is clearly outpacing the population rise. This is doubtless due to the continuing expansion of the purchasing power of the middle class, as well as the fact that college enrollment has roughly doubled since before World War II, and is expected to double again in another fifteen years.

On the other hand, there are serious weaknesses in the magazine picture. Since 1947, printing costs have gone up 40 per cent and paper costs have risen 50 per cent; this means a sharp rise in the cost of expanding, and even maintaining, circulation. The current price hikes for magazines will help offset this. So will some 1956 increases in advertising rates, which were made on the basis of rising costs rather than higher circulation, and were largely responsible for a general rise in the 1956 profit margin. Of course, that rise is an average reflecting both higher profits for leading magazines and more than average declines for others. Magazines like *Life* and *Saturday Evening Post* have just announced advertising rate boosts for this fall in conjunction with an increased guaranteed circulation—six million for the former, five million for the latter. Obviously, they are not the ones in trouble.

When costs are rising, as they

are today, profits tend to decline. In such times, a large circulation can actually kill a magazine if advertising revenues fail to keep pace. A publisher faced with an advertising slump has the problem of having to maintain a high circulation at considerable financial loss, until he can recover additional income from advertising. Big publishers with other successful magazines, or profits from subsidiaries (book publishing houses, printing and paper companies, radio and TV stations, and the like) can keep a magazine afloat longer, of course, than a publisher on a smaller budget can. But even they cannot sustain losses forever. This is the reason for Crowell-Collier's withdrawal from the magazine field. Similar considerations led Town Journal, Inc. to close out *Town Journal* after the February issue.

The impact of TV

Rising costs and the profit squeeze are not the only troubles. It has been estimated that in 1947 magazines were getting 72 cents of each advertising dollar spent for radio and TV and magazine ads; today magazines get only 58 cents. And of the six leading advertising media—direct mail, television, newspapers, magazines, business papers and radio—magazines rank fourth in advertising volume.

With TV sets in more than 37 million households, television is obviously better suited for general mass advertising than the magazines. But TV competition has actually worked greater hardship on the smaller magazines than on the leaders, for advertising has become concentrated in the latter. Advertisers would rather take a page in several issues of one widely circulated magazine than to scatter their shot among several.

On the other hand, magazines have continued to grow in spite of TV. This is probably due to an "all-or-none" tendency—a person exposed to one medium of communication is most likely to be exposed to several. Thus it has been found that more magazines are read in homes with TV than in those without it, and those who read at least one magazine read more than one.

There was a time when, if circulation began to fall, publishers turned to revising their editorial content. That is still true; but today's advertisers, on whom so much of magazine economics depend, are asking for more than quantity in circulation. They want a more specific consumer market—one that will guarantee the heaviest possible concentration of readers who can and will buy the products being advertised.

Paul Smith, former president of Crowell-Collier, bears this out by

attributing the demise of *Collier's* mainly to its failure to provide a "service" aspect for its readers. As a result, the magazine was in direct competition with TV for the general fiction-entertainment market—a competition *Collier's* could not meet. Publishers will have to be more conscious of their readers as consumers.

Facing the challenge

Publishers and editors have begun to take market research more seriously. Magazines with very large circulations must remain extremely broad in editorial content, but the smaller ones may take their cue from a magazine like *Sunset*. Published in California, it is aimed exclusively at Westerners who own homes worth 12,000 dollars or more. With this highly concentrated market, the magazine has become second only to *Fortune* in the number of advertising pages; and it turns down advertising it considers misleading, irrelevant or in bad taste.

The recent hikes in prices and advertising rates may cut down both circulation and advertising, but many are taking this risk in order to bring income more closely in line with publishing costs. At the same time, publishers are experimenting with regional advertising (*Sports Illustrated* has three regional editions) to attract advertisers for whom national

rates are prohibitive. Some are also testing regional editorial differences in an attempt to attract the customers that advertisers wish to reach.

Publishers are taking to heart the advice that the concept of a magazine, which gives the publication its particular character, must be both clear and up-to-date. *Life*, for instance, has kept going by increasing its cultural content in step with the rising educational level.

A turning point

The middle of the 20th century may mark a turning point for national magazines. Some may become more specialized to attract more specific consumer groups, thus avoiding competition with the largest magazines or with TV; some may become increasingly regionalized, in keeping with the tendency towards regional advertising. The current leaders will have to be alert to readers' and advertisers' demands. New magazines will probably seek smaller, homogeneous consumer markets; and while costs are still high, they will require a larger initial investment than formerly for their launching. And all publishing companies will be more likely than ever before to look for some profitable sideline with which to sustain their magazines during future business slumps. ■

Rudolf Bing

General Manager, Metropolitan Opera

"Show Business That's No Business"



Q *Mr. Bing, what is your biggest "business problem" as manager of the Metropolitan Opera?*

A My biggest problem is one which would be fatal in any other business: I have to sell a product at less than its cost. As a result, we lose money every time the curtain goes up.

Q *Do not all opera houses have the same problem?*

A Of course. I do not think opera has any business being a business. All the leading opera houses of Europe, such as the Staatsoper in Vienna, La Scala in Milan and Covent Garden in London, receive government subsidies ranging from one to several million dollars a year. In other words, their deficit—the gap between their costs and their income from ticket sales—is that high.

Q *How does this compare with the Met's deficit?*

A The Met does a little better. As you know, the Metropolitan Opera is extremely successful as far as ticket sales go, both in subscription and single sales. Indeed, we average about 95 per cent of capacity over a 24-week season. This is much better than the box office take of any other opera in the world except, perhaps, La Scala in Milan. Partly because of this, we have been able to level off our over-all deficit at between 300 and 400 thousand dollars a year. While this is a lot of money, especially since we have no government subsidy and must rely

on private funds, it is a good deal less than the deficit of any other leading opera in the world.

Q *But why do you have any deficit?*

A Because opera is a frightfully expensive commodity. It always has been, and, if I may venture a prediction, it always will be. Let me give you a few examples. In a Broadway musical, the orchestra rarely exceeds 40 musicians. The Metropolitan, on the other hand, has an orchestra of 92 whose payroll comes to approximately 15,000 dollars a week. Then there is our chorus of 78 singers—which, by the way, is substantially smaller than in some European opera houses—and that weekly payroll comes to about 10,000 dollars. Our ballet of 36, as compared to a Paris troupe of 120, adds another few thousand dollars to our weekly payroll.

Q *How about your solo singers?*

A We have between 90 and 100 of them, some paid by the week and some by the performance. At the top of the scale, I have (with some difficulty) been able to keep fees down to one thousand dollars per performance, which again compares very unfavorably with what some of these people earn in Europe. And please remember that for every singer who actually sings, I have to have another one in reserve who does not sing, but still has to be paid. That may sound insane to you, but it is quite necessary. You simply cannot stake a 19,000-dollar house on the extremely sensitive vocal chords of any one singer.

Q *What are some of your other expenses?*

A Well, there are the costs of physical production—scenery, costumes, and so on. Last season, for example, we produced a very charming and eloquent French operetta by Offenbach. Now, the costume budget for this work was in the neighborhood of 65 thousand dollars. Clearly, all these figures make up a pretty staggering total when added together.

Q *What are some of your nonfinancial problems in managing an opera?*

A I would say that, for a theater like the Metropolitan, the availability of artists is probably one of our major headaches. Top-flight artists, irrespective of their nationality, must be booked anywhere from 12 to 18 months in advance of the date of their performance.

This means that if you want their services—and, of course, an organization like the Metropolitan does and must have them—you must plan far ahead of time. We open at the end of October, and I would say that by the middle of November we start planning the next season.

Q *How about the so-called artistic temperament? Do you find this a problem?*

A No I do not. Artists are hard-working people engaged in a profession which makes great demands on nerves and sensitiveness and it is not surprising that they should have occasional outbursts. But then who hasn't? It happens in any business.

The box office is a pretty good measure of success

Q *How do you measure the success of an operatic enterprise?*

A I feel that the box office is a pretty good measure of success, because the public here or anywhere else never pays to hear or see something they do not want to see. Giuseppe Verdi once wrote to somebody—I forget who it was, but it must have been an opera manager, "if you want to know how successful you are, don't read the press reviews; read the box-office returns." Certainly, he felt that the box office is a pretty good indicator of success.

Q *What about the "market" for opera? Is it diminishing?*

A The fact that we play 22-week seasons to an average house filled close to 95 per cent of capacity seems to indicate that interest in opera hasn't exactly diminished. There is still an almost unlimited market for high-class singing of the old, well-established operatic favorites.

Q *Is this true of contemporary opera?*

A I am afraid not. There is only a limited market for contemporary opera. Of course, this is not an exclusively American phenomenon, for exactly the same situation prevails in Europe. The only difference is that, unlike my colleagues in Europe who can afford to play a contemporary opera 12 times to empty houses because the government pays for it, I must take account of the public's tastes. About four years ago we did *The Rake's Progress*, by Igor Stravinsky—the first real opera by one of the world's foremost living composers—in what I

think was a pretty distinguished performance. Well, the box office was disastrous. We played to empty houses the likes of which I hope never to see again. Our subscribers tried to sell their tickets, but nobody would buy them. So they tried to give them away, but nobody would take them. In the end, they must have burned them because nobody showed up.

Q *Does not this unpopularity of contemporary works pose a grave danger for the long-run future of opera as a significant art form?*

A Yes. In the long run, the future of opera does depend upon our ability to find replacements for the great masterpieces of the past. On the other hand, these great masterpieces do not seem to be in urgent need of replacement, because *La Traviata* and *Carmen* and *La Boheme* and *Tosca*, if well performed, are still sold out every time the curtain goes up.

Q *If that is so, why has the Met been so eager to extend its operations beyond theater performances?*

A The Metropolitan must attempt to extend its operations, if for no other reason than that we are now playing to a virtually full house, at a deficit, and cannot hope to play to more. Even when our new opera house is completed, it will not have a very much larger seating capacity. Nor can we substantially increase admission prices, although we shall raise them next season by 10 per cent. So, we simply must find other sources of income, if we are to keep up with spiralling costs.

Q *What are some of these "other sources" of income?*

A Well, we have, for example, reached an agreement with the Book-of-the-Month Club whereby we produce phonograph records of Met performances. This season alone we recorded eight Metropolitan Opera performances. I am happy to say that this is an immensely successful and expanding operation which will, I hope, do even better in the future.

Q *How about your ventures into television?*

A So far, we have been more or less experimenting. A couple of years ago we had two studio television performances of *La Boheme*

and *Fledermaus* which were quite successful. This season we carried brief "spots" on a variety program with somewhat less success. It appears that our type of performance just does not seem to mix with ventriloquists and performing dogs. Now, I don't wish to suggest that ventriloquists and performing dogs are not very good in their way. It is just that the audience for that kind of show seems to wait for the dogs rather than for the singers. But this failure does not mean that we shall give up. On the contrary, we hope that we shall eventually find a program more suitable to our art form. If and when we do, we hope to be on television again, and more frequently.

The possibility of performing operas in English

Q *Do you think that there would be an even greater response to opera if it were performed in English?*

A This is a very difficult question, and I think it will take another 10 or 15 years before a sensible answer to it can be given. We have had success with some of our English performances, notably *Fledermaus* and *Perichole*. On the other hand, our English version of *La Boheme* was a complete failure. It all depends on what one does and how one does it. For example, we had success with an English version of *Boris Godunov*; this seemed a sensible thing to do because it is rather silly to do a Russian opera in America in Italian. And we are going to do a new Barber-Menotti opera in English because it is written in English. On the other hand, I do not think I would do *Aida* or *Il Trovatore* in English, although I cannot quite say why. I just feel that it would be wrong.

Q *Do you feel that any of these moves can help you to reduce your deficit substantially?*

A Nothing substantially reduces our deficit. If we come up with a new source of income, we always manage to keep the deficit going. However, we do try to keep the gap between expenses and income from getting completely out of hand.

Q *Do you find that subscribers more or less control your decisions in selecting repertory programs and in casting singers?*

A Subscribers do not exert any kind of influence whatsoever beyond

the perfectly reasonable one that we have to consider what our principal customers would, on the whole, prefer to see. We recognize, for example, that our audience is predominantly Italian-oriented and generally prefers the old masterpieces of the classical Italian repertory. It is, therefore, only sensible that the management should devise a repertory in which the old Italian masterpieces predominate. As to casting, there can be no question of influence here, because anybody in his right mind who has the honor and privilege of managing the Metropolitan would attempt to get the best cast in the world. And that is precisely what we are trying to do—with what success, it is not for me to say. But to say that the subscribers exert any kind of direct control over either repertory or casting would be completely misleading. It is just not so.

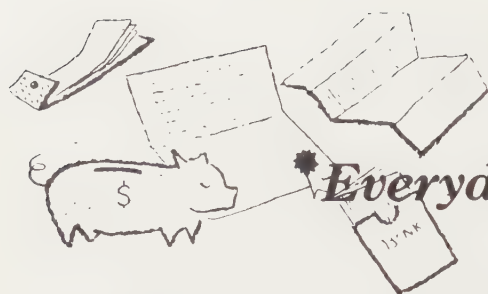
Q How would you rate the Metropolitan with the other great opera houses of the world?

A There is no real basis for comparison. The whole setup of the Metropolitan is so completely different. Italian opera houses work on a *stagione* system where one work is performed six or eight times in a row with the same cast and is then shelved to make way for another work. Largely because of our subscription system, we at the Met have a repertory program in the real sense of the word where one work may be performed periodically over a 15-to-20-week season. Thus, while I feel that there are only one or two opera houses in the world which can compete with the Metropolitan in quality (I am thinking especially of La Scala in Milan) the setup is so different that I do not know how useful a comparison would be.

Q You, for one, are not worried about the future of the Metropolitan, deficit or no deficit?

A I am not. As I have mentioned before, deficits will always be with us; in a way, they are the very lifeblood of opera. We will have opera as long as there are sufficient people around who love this crazy form of art sufficiently, not only to come and pay for their seats, but also to chip in more substantially whenever we are in need. And we always are.

Q Thank you Mr. Bing. ■



Everyday Economics

THE Internal Revenue Service is revising its long-established list of "useful life" of depreciable property, for income tax purposes. The present list was compiled in 1942 and is now quite out of date. The public is invited to make comments and suggestions. They should be submitted in duplicate to the Internal Revenue Service, Washington, D.C., prior to June 30. The Service expects a considerable response, and hopes businessmen, farmers, trade groups and the like will describe the way in which technological improvements and economic changes affect the "useful life" of traditional property, and what factors determine the "useful life" of property now in wide use but not included in the old *Bulletin F*.

Amphibian for rent



THE NEW auto-boat combination enjoyed last winter by Floridians is expected to be available this summer in New York, Chicago,

Denver and Dallas. The Sea-Fari is a boat hauled on a trailer behind a car, and is fully equipped for fishing, water-skiing or cruising. It is available from Couture Rent-a-Car-Service for a little over one hundred dollars a week, plus ten cents a mile for the car.

Guidance for gardeners



IN EACH of the 48 states there is at least one state agricultural experiment station; in some there are several. Supported by federal and state funds, these stations are an important source of horticultural guidance and information for the home gardener and farmer as well as the commercial gardener. Research in the stations covers a wide variety of gardening problems, some general and some directed specifically to local considerations of climate, pests and such. New varieties of fruits, vegetables and plants, new types of insecticides and weed-killers, soil analysis and particular ferti-

lizer needs are among their many studies. To find out about the station in your own state, write to the Director, State Experiments Division, Department of Agriculture, Washington, D.C.

And again, taxes



ON MAY 10, employers depositing income and Social Security taxes on time in the first quarter file the quarter's return; manufacturers and others depositing the quarter's excise taxes on time, file the first quarter return. On May 15, farmers deposit all undeposited Social Security taxes on wages paid employees in 1957 through April, if over 100 dollars; tax-exempt organizations file information returns for 1956, on form 990 or 990A. And employers deposit income and Social Security taxes withheld in April, if more than 100 dollars.

Aviation for small fry



A NEW booklet for children between four and eight years old will prove both absorbing and educationally accurate. It has cutouts of pilot and stewardess hats which can be colored, pasted together and worn; an airport game that can be played by four children; and a

picture dictionary to be put together by cutting out words like control tower and helicopter and matching them with the correct pictures. Called *Aviation Activities*, it is available for 30 cents from the National Aviation Education Council, 1025 Connecticut Ave., Washington 6, D.C.

Know your rights



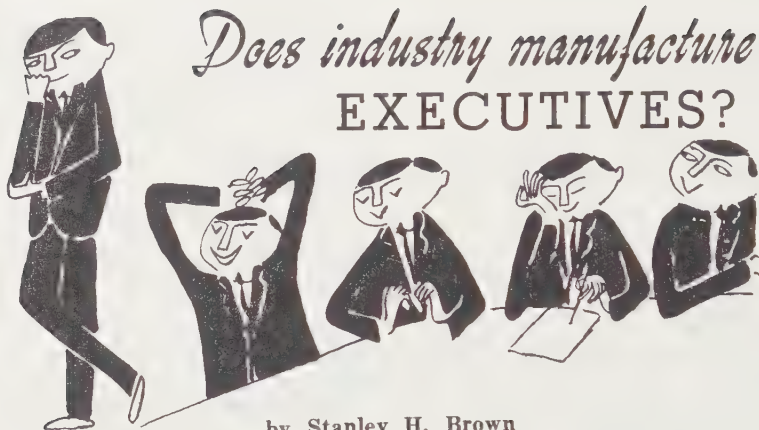
DO YOU know whether your state has a Fair Employment Practices Act? Or whether the National Labor Relations Board considers as valid a contract between an employer and a union, drawn up without NLRB participation? The answers to these and just about any other question you may have about labor laws in this country, as well as in your own state, are contained in a small book, *Your Rights Under Labor Laws*, by Carl Rachlin. The paperbound edition is available from your bookseller, or Oceana Publications, 43 West 16th St., New York 11, N.Y., for one dollar.

Spare the rod



To remove crayon from washable wallpaper, sponge with carbon tetrachloride, then wash with thick soap or detergent suds, and rinse with a clean, damp sponge.

—G.M.S.



by Stanley H. Brown

Because "born executives" are rare, business finds it necessary to conduct management development programs, sometimes geared to artificial standards

JUST as it begins to appear that today's businessman is getting somewhat better treatment at the hands of the novelists, he is brought face to face with a new phalanx of literary adversaries—the sociologically oriented journalists. The Businessman is not Babbitt anymore. He has become much more—the "organization man," a member of the "power elite," a leader of conformists or a conformist among leaders. Strictly speaking, of course, these labels are not attached to all businessmen. The targets of these new critics are the men who run our large corporations.

The evolution of the modern corporation since the days following the Civil War is well known. That this evolution has led to a situation in which the managers

of corporations now hold power based on other people's money is also an established fact of our economic life. It is somewhat less evident, however, that this situation has made the present-day executive rather defensive about his position.

Add to this the fact that there are nearly 170 million people in the United States now, and therefore the big corporations must seek, with a great deal of success, to expand in order to hold onto their shares of this burgeoning market. Consider, too, the tremendous widening of the horizons of knowledge in the social and physical sciences which must be faced every day by virtually every major corporation if it is to stay abreast of its competitors.

These are all fairly obvious con-

ditions of corporate life; but taken together, they present what surely must be the greatest need for organization in history. And if the shuffling, sorting and categorizing has produced conformity, it is still a miracle that there is not more.

Of course, this does not absolve corporate management from the same sort of scrutiny and criticism to which every other institution in a free society must be subjected. It merely demands that the whole picture be evaluated in some sort of related context.

No one, for example, can seriously take issue with the fact that a whole generation of middle management (or junior executives, or whatever term you choose) seems to be clad in narrow-cut, neutral-color suits. But this phenomenon should be viewed as one element in the many that have made the post-World War II generation the "cool," underplayed types they are. Not the least of these elements must be a simple reaction against the exaggerated and padded suits of the past.

Of much greater significance is the question of what goes on inside the grey-flanneled walls of the corporation and in the minds of its people. Is there real pressure to conform to a certain pattern? Again no one can seriously doubt that there is. The machine must

run, and it must run as smoothly as possible. The management function is a complex one centered about the *process* of decision-making. In the small company and in the domain of the old-time boss, there is no process. Experience-based intuition provides the answers quickly. The real trouble arises in the complex organization. There are not enough born managers to fill all the corporate slots. Consequently, industry has had to "manufacture" managers.

What began as an obvious make-shift has become, in many instances, a fad known by such titles as "management development" and "executive training." Many corporation people probably believe that a manufactured manager can be the equal of a natural one, and perhaps that is true for most executive positions. It is probably also true that many of the skills acquired by an executive can be applied almost literally in any business. There *are* many characteristics common to, say, deodorant production and machine-tool building. But industry is realistic enough, for the most part, to be able to draw the line and establish a value for experience in a particular industry.

Where the slavish knuckling under to the principles of "scientific management" is a fact, the blame cannot properly be pinned exclusively on the corporation.

Stanley H. Brown is an editor with the Research Institute of America.

There is no reason to blame management for being opportunistic when it is, in fact, presented with people who want to be molded according to a pattern that seems to guarantee them security.

The critics had better look to other aspects of society as well, if they must find culprits who encourage conformity in business life. The corporations may have provided the equipment for our standard of living. They may be greatly responsible for fomenting desires for this equipment. But they surely did not create the concept that the standard of living is a thing to be worshipped above all.

Wild neurotics

The college recruit who enters industry today wants to "get ahead" reasonably far at not an unreasonably slow pace. Now, he may feel pressed, and even a little oppressed, when he is asked to subject himself to a formidable battery of tests, including so-called personality and projective tests. If he stops to consider the tests at all, he can probably figure out ways to beat at least some of them. More likely, though, he approaches them with some knowledge of what sort of type he ought to be to pass. As a matter of fact, any number of wild neurotics have managed to stack up well in these simply by assuming the role of the "organization man" for the

few required hours. That certainly is conformity, but the recruit does not regard it as an awesome price to pay for a job he wants. And on management's side, it ought to be said that the tests do provide at least some assistance to hard-pressed recruiters.

The morality of this probing of minds, wives and the contents of medicine chests—if it is as widespread as we are led to believe—seems to be the paramount issue. But it ought not to be in today's wide job market. A more important question from management's standpoint is the wisdom of such practices.

One of our largest corporations has commissioned a clinical psychologist to prepare a projective test to sort out "radical" and "conservative" types among candidates for management positions.

Such tests raise more questions than they answer. For instance, who can say for sure how deep radicalism and conservatism of the sort tested really go? What desirable qualities are eliminated along with the undesirable ones? Some people, for example, believe that radicals tend to be more creative. Actually, chances are the conservatives are just as creative as the radicals. So the only thing the test provides is a slightly more congenial group politically.

There is little doubt that the critics of business have *something*

to go on. By and large, however, what they are deploring now is not a reality but a fiction based on the extension of seeds and trends that are present in the business organization today. They usually assume the preamble: "If left unchecked. . . ." They don't give much weight to the countertrends, and these can prove just as important if corporate policy makers become increasingly aware of them.

Scarcity of manpower

Some of these countertrends are minor; but others are of major consequence right now. Take this case: A Midwestern manufacturer in an extremely conservative industry uses a consulting clinical psychologist to help him screen management applicants. But rather than have the consultant eliminate the neurotic types who ordinarily are not considered proper material, he gives special consideration to these candidates. Because good creative manpower is scarce at any time and scarcer now, this manufacturer feels he cannot afford to rule out the "odd-ball" who may actually have more to offer his concern than the "normal" grey-flannel type. He is willing to put up with a man's problems if they are manageable and if the man can contribute enough to the company's progress. This is not a typical case, but many other companies do much the same thing

to gain sorely needed manpower.

Or consider the growing awareness of business of the relationship between morale and productivity. For years, it has been the consensus that a happy work force is a more productive one. A few decades ago it was almost universally held that a hard-pressed group turned out the most goods. Now, no one is certain what the answer is, and many corporations are spending money to find out. The final outcome of this search may well lead to an entirely new (or old) concept about many cherished management principles of communications, supervision, etc.

Or what of the problem of making jobs more meaningful? Greater use of automation is certain to compound this problem in the years to come, for no one in top industry circles will tolerate the rise of a race of bland robots to man the machine-operating machines. Do-it-yourself, bowling and "self-improvement" may be all that most industrial policy makers see now as the means of preserving employee sanity. But the solutions must obviously go deeper. And in reaching for the answers to these and many other pressing and not-yet-so pressing problems, the organization, and the individuals who populate it, may well exercise individuality and creativity, thus refuting their critics again and again. ■

BRAINTRUST, INC.



Publicly owned, pseudo-private research organizations study defense problems and advise our military planners

FROM Greenland in 1970 word is flashed to the United States that a force of 500 planes is over the North Pole and apparently headed for Boston and New York City. In a few moments, 38 ground defense units in the far north are alerted, and 375 U.S. jet interceptors are ordered into action. Battle positions, battle tactics and speeds, range and armaments of the enemy and American planes are translated into mathematical terms that can be digested by a huge analog computer. In a few seconds, the computer reveals how the fight came out.

No one is hurt in this mock air battle conducted by the scientists of The RAND (Research and Development) Corporation, one of the nation's three private organiza-

tions devoted entirely to studying military problems and advising Air Force generals and Atomic Energy Commission directors on how to solve their problems. If bombs rained down on Boston and New York City, RAND scientists start all over again with their computations, changing the elements of the U.S. defense force by adding more ground fire or more planes or switching the tactics. Hundreds of versions of the same battle have already been fought in an attempt to work out the best combination of men, planes and tactics to meet and repulse an enemy air attack.

The imaginary battles are merely one of the many problems that young RAND scientists have been working on for the last 10 years.

This bloodless air fight is a continuing one as new planes, ground defense systems and weapons are produced, by both the U.S. and other nations. Each new combination of force poses new questions that RAND scientists tackle.

What is the best way to deliver bombs? Should future bombers be bigger and fly higher and faster than any we now have? Assuming that we must have an air fleet that can carry bombs over a required strategic distance, which air fleet would be more effective: a certain number of large airplanes or a larger number of smaller aircraft? RAND experts do not attempt to answer these questions on the basis of how the U.S. should use the planes and materials already on hand, but instead seek to determine what kinds of weapons and tactics the U.S. *should* have at any given moment in the future.

"Future" is the key word, and the key to RAND's activities. The 800 physicists, aerodynamicists, economists, electronics experts, political scientists, chemists, logicians, mathematicians and statisticians at RAND lock themselves into the corporation's handsome Santa Monica, Calif. headquarters building and think and probe into

the future. These men represent the best of America's brains, and their collective brainpower has created a "Braintrust, Inc." without parallel in the nation's history.

Since RAND was first organized by the Air Force in 1946, two other similar private corporations whose work is entirely for the government have been created. Associated Laboratories, Inc., which administers atomic energy laboratories on Long Island, N.Y. for the Atomic Energy Commission, devotes all of its time to the commission's research programs. ARO, Inc. was created by the Air Force to manage and direct its experimental wind tunnels at Tullahoma, Tenn.

These pseudo-private corporations came into being for one important reason: to hold scientists on military work after World War II. The scientists had made major contributions to the Army, Navy and Air Force during the war but were intent on leaving the rigid, disciplined atmosphere to return to civilian life, just like any GI. The military sought to prevent this wholesale exodus because it threatened to disrupt and stall the progress of important military developments that had occurred during the war—radar, guided missiles, jet propulsion.

Assigning research activity to private industrial firms, which gathered up a great many of the

This article was prepared by the editors of CHALLENGE to emphasize the importance of the civilian scientist to national defense.

scientists emerging from the military, was not entirely satisfactory. Such firms sought to obtain an advantage over their competitors, and the danger existed that research programs would be used for this end. Making universities the hub of military research programs, as had been done to a great extent during the war, was not entirely satisfactory either. The universities, operating under a greater aura of freedom of activity than exists in industrial corporations, lacked the necessary administrative authority to maintain disciplined inquiry.

RAND's versatility

The late Air Force General H. H. "Hap" Arnold is credited with adapting the demands of the Air Force to the desires of the scientists. RAND was given 10 million dollars of Air Force research money to "provide scientific assistance in improving the research and development decisions that determine the character and set the limits of future combat."

This contractual system made it possible for the Air Force to have its work done by the largest number of the nation's best scientists who were unrestricted by federal pay scales, civil service red tape and military tables of organization. More important for the scientists, however, was the fact that they could work in an atmos-

phere that guaranteed independence of scientific inquiry and gave them the opportunity to criticize policies and programs without danger of reprisal and repression.

Not only does this atmosphere protect the work and the scientists from public scrutiny, but it also shuts Congress out. In the past, Congress looked into the research activities of the Air Force and other military units as part of their examination of appropriation requests and under the assumption that government agencies are sometimes inefficient and mismanaged. But they take a contract with a corporation to mean that a job will be done efficiently and less expensively.

RAND, which has grown from a force of 400 to 800 of the nation's top scientific brains, has done a job that satisfies its best customers, the Air Force, the Atomic Energy Commission, and the State Department. This year, its contracts amount to 23 million dollars. This covers RAND's overhead, plus a six per cent profit which is plowed back into the corporation.

Its greatest contribution has been the creation of what is called "systems analysis" which attempts to "find the best combination of characteristics, rather than the best individual characteristic." This system of thinking builds new structures out of individual

components instead of breaking down the individual components.

Applied to military thought, this scientific method has changed classic concepts of warfare from one in which reliance was placed on a gadget or a force to one in which warfare is thought of in terms of the entire military complex: manpower, industrial production, new weapons and the industrial and military potential of friendly and unfriendly countries.

Scientific assistance

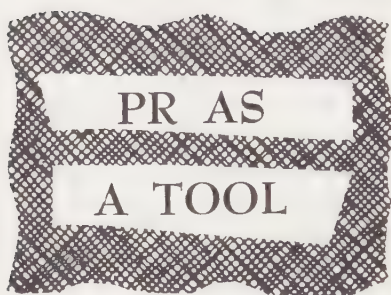
RAND, for example, has come up with these studies: It determined that although tensions in modern life have resulted in an increase in mental disease in the U.S., this increase does not affect the 18 to 45 age group, the potential military force. It concluded that the substitution of beryllium for aluminum in the construction of planes would save money by halving the weight of planes and increasing payloads. It figured out that less food is being produced in China today than in the years before 1937. It codified the principles of action underlying the calculations and decisions of the Soviet Union's Politbureau into a system to be used in predicting what the Politbureau is apt to do.

While most of its studies are based upon questions asked by the military departments, RAND and its companion corporations dig out-

side of those areas. Don K. Price, former deputy chairman of the Research and Development Board of the Department of Defense, has said that these private corporations "are the most important sources of independent, skeptical and uninhibited criticism of military thinking."

The only trouble is that this criticism is oftentimes not made public. Most of RAND's work is labeled super-secret and is seen only by the top generals in the Defense Department or the top administrators of other federal agencies. Sometimes, like the decision involving the building of the H-Bomb, information leaks out to the public. Most of the time, however, RAND's reports are bottled up to be either implemented or discarded by the officials.

The structure of the world's political forces and the unsettled state of affairs created by the geeing and hawing of the major powers led to the collection of the nation's best scientific brains into RAND's strange pseudo-private, yet publically endowed, corporation. The public has yet to wonder whether it would not be also useful to put a similar collection of brainpower to work, not to develop new and more frightening weapons and military tactics, but to come up with concrete plans that would maneuver the nations of the world into a peaceful community.■



PR AS A TOOL

**It is a top-management function
of vital importance to the
operation of a business**

by Clifford J. Jenks

“WITH public sentiment on its side, nothing can fail; with public sentiment against it, nothing can succeed,” Abraham Lincoln once said. It is not hard to find contradictions to this statement through history, but as far as business is concerned, nothing is more vital to success than public support. It was to be a good many years after Lincoln’s sage observation, and especially during the last two decades, that businessmen, too, became concerned with the importance of public sentiment.

Whether this is because of a new ethical foundation in the business community or a kind of “enlightened self-interest” is a moot question. The important thing is that this trend is proving highly beneficial both to the public and to

business. Because of this increased concern with public relations, business has given the public an important “vote” in shaping the policies that determine its behavior. On the other side of the coin, businessmen, by running their businesses as much as possible in the “public interest” (and making the public aware of it) can operate in a more permissive and cooperative social climate and, therefore, operate more productively and efficiently.

Achieving this public support, however, is not just a simple matter of setting up a public relations department with a healthy budget for advertising and publicity. The businessman must know what the public expects of him, what type of behavior will truly be in the public interest, how effective his communication programs really are, and what roadblocks stand in the way of his winning public approval. It is in these areas of uncertainty that the need exists for greater use of sound public relations research.

To some, public relations conjures up visions of a circus press agent in a loud, checkered sports jacket arranging parades and tacking up posters. Others see public relations as a euphemism for sinister self-interest and lobbying activities. To still others, the public relations man is simply a seeker after free newspaper space,

suavely plying newspapermen with expense account cocktails.

Each of these stereotypes does have some basis in fact, but public relations as an aspect of modern business cannot be dismissed as so much ballyhoo and tub-thumping. Not only has it become a respectable, worthwhile business tool, but it is, in fact, becoming increasingly recognized as a top-management function of vital importance to the successful operation of any business.

We have come a long way since the "public-be-damned" days of the 19th century, when the captains of industry rode roughshod over all who stood in their way. This indifference to the public interest has been replaced in the modern corporation by a considerable sense of social responsibility. The sources of this new orientation are many and complex. But among the more significant might be included the replacement of the "mogul" of industry, the owner-manager, by the modern professional manager, who, as an employee of the organization has as a goal, not the ruthless acquisition of immediate fortune, but rather the healthy perpetuation of the enterprise.

In defining contemporary public relations, therefore, this new

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sense of social responsibility must be taken into account. Harwood Childs' definition furnishes a useful perspective: "Public relations may be defined as those aspects of our personal and corporate behavior which have a social rather than a purely private and personal significance." And a description formulated by *Public Relations News* rounds out the picture: "Public relations is the management function which evaluates public attitudes, identifies the policies and procedures of an individual or an organization with the public interest, and executes a program of action to *earn* public understanding and acceptance."

Two primary areas

Public relations functions, then, in two primary areas: communication in an effort to cultivate public acceptance and approval on the one hand, and on the other hand an attempt through astute counseling of management to insure a corporate behavior that will *deserve* acceptance and approval. We can underline some of the opportunities for research in each.

In communication, public relations practitioners have barely begun to take advantage of the research methodology already developed under the general heading of "communications research." World War II played a major part in stimulating such research, for

we needed to identify and combat enemy propaganda, to maintain morale and enthusiasm at home and at the front, and to develop psychological warfare as an offensive weapon. Top priority was given to the scientific analysis of mass communication by the best minds in the country. This interest was sustained after the war, and many social scientists involved at that time have continued working in the field, some for the government, some independently, and some in various universities. Many commercial research organizations have also been contributing to the field.

Modern communication research has been described for purposes of simplification as an attempt to discover *who says what to whom through what channels and with what effect*. From this formula, we can identify areas in which research might be applied in the public relations area. The "who" in the formula refers to research concerning the *communicator* in any communication process.

Content Analysis

The second area, involving "what" is being said, concerns the techniques of content analysis or the detailed qualitative and quantitative study of the actual content of communicated messages in order to determine the actual manifest and latent ideas. For example,

a content analysis of newspaper and magazine articles about a given organization or a certain subject can provide valuable information on the real nature of the ideas to which the public has been exposed.

Research relating to the *channel* of communication involves analysis of the characteristics, advantages and disadvantages of the various available media of communication and their suitability for the communication job to be done. This third area includes more basic research into the ways in which ideas and opinions are transmitted through personal influence in society, and the means of utilizing these channels.

Audience characteristics

The fourth area, the "whom" of the formula, refers to research designed to identify and understand the audience for a given message. It may be the opinion leaders; or a special "public" such as employees, shareowners, customers; or the public at large. In any case, it is essential that the communicator be aware of the characteristics of the audience, what prejudices he must overcome and what approaches he must employ to gain acceptance of his ideas.

And finally, the biggest problem of all: "with what effect" refers to the area of research to

which most attention has been given by businessmen to date. It involves such measurement methods as the various "impact" studies to determine people's ability to recall messages, and the many public opinion surveys conducted by and for business organizations to determine whether public relations goals are being reached.

Indices of overt feelings

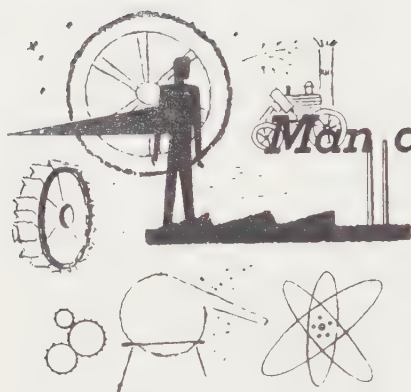
Opinion surveys have proved useful as indices of overt feelings and opinions, but a great deal more needs to be known about people's underlying attitudes. A person confronted by a survey interviewer may profess great admiration for a company, for the integrity and excellence of its management, for the contributions it makes to the nation's security, for its fine products, its forward-looking research efforts and for its contributions in general to the country's standard of living. And yet this same individual as an employee may readily agree when it is suggested that the company is cheating him out

of a fair wage; or as a customer he may be easily convinced that prices are unreasonably high; or as a shareowner he may feel entitled to a greater return on his investment; or as a voter he may applaud and elect the representative who promises to break up the same company as a "big business." Much work has been done and is being done to develop methods of getting at the real motivational aspects of people's attitudes, but there is still much to do.

Research is not a "cure-all" for all of the problems of the public relations practitioner any more than public relations is a universal balm for all of the ills of business. But with the ever-increasing complexity and expansion of our economy, the problem of integrating the business enterprise successfully with its social environment becomes correspondingly complex. The "seat-of-the-pants" theory of public relations—the idea that all that is needed in dealing with these problems is a good "public relations instinct"—is becoming increasingly inadequate. ■

Answers to Challenge Quiz

- | | |
|----------------------------------|-----------------------------------|
| (1) False (<i>see page 13</i>) | (7) False (<i>see page 18</i>) |
| (2) False (<i>see page 28</i>) | (8) True (<i>see page 68</i>) |
| (3) True (<i>see page 36</i>) | (9) False (<i>see page 48</i>) |
| (4) False (<i>see page 60</i>) | (10) True (<i>see page 23</i>) |
| (5) False (<i>see page 32</i>) | (11) True (<i>see page 44</i>) |
| (6) False (<i>see page 64</i>) | (12) False (<i>see page 52</i>) |



Man and the Economy

No. XXIV

The contribution of the economist to the age-old problem of adjusting limited resources to unlimited desires

THIS WILL BE the last of a series of articles on the development of man's economic ideas from pre-literate times to the present. It has been a long, and we hope interesting journey—from the caveman struggling to keep alive to the 425-billion-dollar American economy of 1957. Along the way, man's ideas about the workings of an economic system have struggled with considerable success to keep pace with revolutionary changes in his physical and social environment.

For as society has become more complex, so have its economic problems. Our caveman hunting for his dinner in the wilderness had a difficult problem—to stay alive between sunup and sundown—but he did not need to consult an economist to tell him how to do it. Indeed, the *professional* economist is a relatively recent development, for there were no economists

as such two hundred years ago, and it was not until the 1870s and 1880s that economics began to be widely taught in the universities. The reason for this is obvious: although economic problems have existed since time immemorial, it was not until fairly recently that these problems became so complex as to require detailed professional investigation.

For one thing, until very recently we had been unable to devise satisfactory ways of testing economic generalizations. When the English economist, Robert Malthus, wrote his famous *Essay on Population*, for example, there were no reliable censuses with which to test his theories. And what was true of Malthus was true of other economists. While their writings provided us with valuable insights into economic behavior by showing us the relationships among such economic aggregates

as wages, profits, rents, and so on, there was no way of checking these insights against the facts of economic life. The mercantilists of the 17th and 18th centuries and the classical economists (Adam Smith, Robert Malthus and David Ricardo) of the late 18th and early 19th centuries exerted a great influence on the thinkers of their day, but their ideas were not, strictly speaking, "scientific." Physics did not become a true science until, in the 16th and 17th centuries, scientists like Galileo, Leeuwenhoek, and others, began to devise experiments to test their hypotheses. While economics has not yet succeeded in devising equally successful tests for economic theories—and there are some economists who believe that it never will—we have devised general quantitative yardsticks against which the validity of economic theories can be tested.

As a result, we know a great deal more about such matters as national income flows, investment-income ratios, and so on, than we did even 20 years ago. Economic predictions are, even now, no "sure thing." It was only four years ago that an internationally recognized economist predicted a very severe American depression and got a mild recession instead. Neverthe-

less, economists are able to tell us, with some degree of accuracy, what the probable consequences of specific economic changes—such as a cutback in output or a rise in the rediscount rate—are likely to be. And that is no small achievement.

However, the question is often asked: "What *use* is all this knowledge to most of us who are neither statesmen nor economists and who find in the general theories of economists little guidance in our own day-by-day activities? What connection is there, these people wonder, between such abstruse concepts as "marginal propensity to consume," "marginal utility," "economic rent," and so on, and their personal decision to apply for a loan, or buy a car, or seek a job? And, if we are going to be honest about it, the question is well taken, for there is no *direct* connection between the aggregate (or, as the economist would put it, macroeconomic) concepts of economic theory, and the unique, or microeconomic, problems of individuals, families and individual businesses.

But there is an *indirect* connection, and it is an extremely important one. The aggregate concepts of the economist consist of the actions of millions of individuals like ourselves. The amount of income we have available to spend, save or invest; the number of jobs we can choose from; the

This is the concluding article of a series in CHALLENGE dealing with the economic development of man.

buying, job and investment opportunities available to us—all this is influenced by aggregate movements in employment, income, investment and sales. Indeed, this dependence of our individual fortunes on the over-all economic prosperity of the nation has become increasingly important as society has become more complex and interdependent. The tragic experience of the world depression of the 1930s demonstrated once and for all that "*no man is an island intire of itselpe.*" Certainly, the millions of workers who found themselves out of work did so, not because of any miscalculation on their part, but because the general economic system upon which their income depended had broken down. In the kind of world we live in today, what happens to our personal fortunes is irrevocably linked to the general welfare of the economic system of which we are a part. And since that system is the creation of human beings and their theories (conscious or unconscious) of how an economy operates, it is clearly important to know what these theories are and how accurately they describe reality.

Actually, all of us are economic theorists—of a sort. Like the character in Moliere's play who was surprised to discover that he had been speaking prose all of his life, some of us may be surprised

to learn that we all base our actions, whether we know it or not, upon some notion concerning economic behavior. As the English economist, John Maynard Keynes, has remarked, "Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist."

Marginal utility analysis

When, for example, we decide to send Junior to college rather than buy a Cadillac because we deem education a necessity—and besides we already have a Chevy—we are, whether we know it or not, engaging in the marginal utility analysis of such economists as William S. Jevons, Anton Menger, and others. When we have to stay in the office late and the boss must pay for overtime, the assumption is that the "pain" (or "disutility," as the economist would call it) of working the ninth or tenth hour is greater than the pain of working the first hour—which, again, is a basic concept of marginal utility analysis. After all, everything we do is an attempt to adjust our limited resources to our unlimited desires. In a sense, therefore, we are all economists.

The question remains, however: How can we distinguish between a "good theory" and a "bad theory"? As previous articles in this series have shown, economists

themselves have often violently disagreed in their interpretation of how an economic system functions. How, then, can we expect the layman to decide?

In a sense, of course, it is impossible for the nonprofessional to decide between such technical concepts as, say, Bohn-Bowark's "positive" and Keynes' "liquidity preference" theories of interest. But in general, there are certain tests which can at least *help* us detect a wrong theory. If, for example, two economists, on the basis of the same accurate data, make two different predictions, and one prediction is way off while the other comes fairly close, then it would seem reasonable to suppose that at least some of the theoretical assumptions behind the false prediction were false. For, contrary to common belief, it is impossible for an idea to be "all right in theory but false in practice." If a theory does not stand up in practice, it is just no good—either in theory or practice.

Describing reality

Unfortunately, this yardstick of a "good" theory—whether it accurately describes economic processes—does not help us resolve a more basic question, namely, which theory *ought* to describe reality. Of course, that is no longer the peculiar problem of the economist, but concerns all of us. Do we

want social security, or full employment, or more purchasing power? The economist can tell us what price we must pay for these objectives; he cannot tell us whether that price is worthwhile. He can present us with alternatives, but he cannot (except, of course, in his role as a citizen) tell us which alternative is better. For that decision is not, strictly speaking, an economic one; it is a social one. In a democracy, the objectives of an economic system are set by individuals and groups in their capacity as voters, consumers, investors and bargaining agents. The economist cannot tell us where to go; he can only tell us how we can get there.

In practice, it is very difficult to separate means from ends. Clearly, an economist who believes that the only way for a nation to recover from recession is for government spending to take up the slack—such an economist will also believe that this is what the government *should*, in fact, do. For, unlike the physicist, the economist's theories do not describe nature, but something that man has himself created and must endure—society. His discoveries, therefore, describe something that has been built upon certain *values*. It is impossible to describe the American private enterprise system or the Soviet state capitalist system solely in terms of "efficiency." Basically, the choice

is: do we prefer the values of the one over the values of the other? And even the economist, try as he might, cannot escape passing judgment on these values.

Clash of ideals

Indeed, it is the clash of ideals and philosophies which makes the history of economic thought such a vital and interesting subject. For behind the technical jargon about marginal utility, liquidity preference, and what have you, are the varied beliefs and aspirations of man in his age-old search for the good life. The greatest economists — Smith, Malthus, Marx, Keynes and Schumpeter—were all social philosophers, and their books describe society both as they see it and as they would like to see it.

And in spite of the current tendency of many economists to confine themselves to the analysis and description of economic events, we may be quite sure that they, like

the rest of us, will continue to be interested in improving society. The growing number of economists employed as consultants and policy advisors to government and business—a relatively recent development—means that economists are becoming increasingly involved in basic questions of policy. And we may expect a continuation of this trend.

But, the basic responsibility for the kind of society our children and grandchildren will find depends upon us, and not on the economists. Just as the physicist, whose ingenuity has propelled us into the nuclear age, cannot be blamed if we decide to use this knowledge in order to reduce ourselves to radioactive dust, so we should not blame the economist if, instead of the age of plenty that is potentially ours, we dissipate our productive potential and leave in our wake a legacy of economic chaos for our progeny to remember us by. ■



Beginning with the October 1957 issue, CHALLENGE will inaugurate a new series of articles on the development of the economy of the United States



READING REPORT

A Proposal: Key to an Effective Foreign Policy. Max F. Millikan and W. W. Rostow. 170 pp. New York: Harper & Brothers. \$2.75.

•During the recent Senate study of what the aim and goal of foreign aid should be—and the most effective way in which such aid can be administered—Mr. Millikan, co-author of this book was invited to speak on the problem. In this book, he and Mr. Rostow have set forth their views on this subject. If one assumes with them that “the goals, aspirations and values of the American people are in large part the same as those of peoples in other countries,” then they have indeed made an ingenious suggestion for reconstructing our foreign aid policy. Essentially, they recommend that funds be allocated “on a banking concept rather than a subsidy concept.” The idea is supported by impressive data and logic.

* * *

Codetermination: Labor's Middle Way in Germany. Abraham Schuchman. 247 pp. Washington, D.C.: Public Affairs Press. \$4.50.

•West Germany's program of “code-termination,” officially recognized by law in 1951, provides for union participation with management in the making of many corporate decisions affecting labor. A detailed analysis

of the meaning, evolution and economic implications of codetermination, both as an ideology and as a going union-industry relationship, is presented in this volume. The author has done full justice to his important subject by his thoroughness and an attractive style.

* * *

The Growth of Public Employment in Great Britain. Moses Abramovitz and Vera Eliasberg. 155 pp. A publication of the National Bureau of Economic Research. Princeton: Princeton University Press. \$3.75.

•Is the magnitude of government employment a measure of the trend toward collectivism or totalitarianism? This is one of many significant questions that came to mind in connection with the large shift of workers from private to public activities during the past half century or more. The extent and nature of this shift in Great Britain is the subject of this volume. Though basically a statistical study, the book nevertheless contains a good deal of valuable social, economic and political background material which brings the factual findings into focus. In addition, the authors offer a number of intriguing hypotheses relating to the significance of the facts they have collected. The volume is a companion to a previous study, also spon-

sored by the National Bureau, entitled *The Trend of Government Activity in the United States since 1900*, by Solomon Fabricant.

* * *

The Office in Transition: Meeting the Problems of Automation. Esther R. Becker and Eugene F. Murphy. 190 pp. New York: Harper & Brothers. \$3.50.

•The problems, both human and technical, involved in the mechanization of office work are treated compactly, yet comprehensively, in this book. The authors explain the overall rationale as well as the operational procedures of modern office equipment and techniques. Their account is especially valuable because the human problem is given sympathetic and intelligent treatment throughout the text as well as in specific chapters, like that on preparing people for mechanization. Appendices devoted to equipment descriptions, and other helpful data make the book additionally useful.

* * *

The New Revolution in the Cotton Economy: Mechanization and its Consequences. James H. Street. 294 pp. Chapel Hill: The University of North Carolina Press. \$5.00.

•Cotton, of course, is no longer "king," but its one-time reign has left a heritage of economic, political and social problems. This book digs deep into the causes of these problems. The author traces in detail the waxing and waning fortunes of the cotton economy from the Eli Whitney era to the present when, at long last, mechanization is helping cotton production catch up with standards of efficiency in other agricultural production. The new technological triumphs are opening the

way for far-reaching readjustments not only in cotton growing but in the entire social system of the traditional cotton areas. Dr. Street has done an excellent job of organizing his material and outlining the social implications that flow from the facts.

* * *

Magazines in the Twentieth Century. Theodore Peterson. 457 pp. Urbana: The University of Illinois Press. \$6.50.

•Until the publication of this book, up-to-date information about the development in the U.S. of the low-priced popular magazine of national circulation has been scattered, if available at all. This account extends through 1955. Mr. Peterson discusses the major tendencies in the popular magazine industry, and the sociological and economic forces which helped shape them, beginning with its birth in the late 19th century as America began the transition from an agrarian to an industrial economy. One of the most interesting aspects of the story is the way in which the national distribution of consumer goods and the expanding market for these goods brought about an increasing volume of advertising, which found in nationally distributed magazines an excellent medium for reaching consumers. This in turn made it possible for magazines to expand circulation even further, since profits have not come from the charge to readers, but from advertising. Yet, large circulation has been necessary to attract advertisers. Along with baseball and the hot dog, the consumer magazine seems to be a peculiarly American institution, and Mr. Peterson has provided us with a fascinating account of how it came into being. ■



Challenge Quiz

HOW WELL can you do with this true-false quiz? Test your ability to increase your knowledge through reading. Ten correct answers is Excellent; 9 Good; 8, Average. If you do the quiz *before* reading the articles, 6 correct answers is Good. Answers on page 71.

- | | |
|---|--|
| <p>(1) A sudden drop in defense spending produces severe unemployment and sharply reduces both consumer and business spending.
True ☐ False ☐</p> <p>(2) Farm support payments have been considerably decreased since 1952.
True ☐ False ☐</p> <p>(3) Competition in organized baseball is ensured by the "reserve clause," which prevents concentration of the best players in the wealthiest clubs.
True ☐ False ☐</p> <p>(4) The strong pressures for conformity in contemporary American life stem entirely from conformism in business.
True ☐ False ☐</p> <p>(5) Motivation research discovers the consumers' buying habits.
True ☐ False ☐</p> <p>(6) Military research has found no way to avoid the bureaucracy which seriously hampers creative scientific work.
True ☐ False ☐</p> | <p>(7) Medical research expects to solve its major problems in the next decade.
True ☐ False ☐</p> <p>(8) The communications research now being done by public relations departments began in the psychological warfare studies of World War II.
True ☐ False ☐</p> <p>(9) Magazine publishers make their profit from a high circulation with a small gain on each magazine sold.
True ☐ False ☐</p> <p>(10) The present cost of a new hospital bed, including the services and equipment, is about 17,000 dollars.
True ☐ False ☐</p> <p>(11) Only five American port channels now have the minimum depth and width considered necessary for safe maneuverability.
True ☐ False ☐</p> <p>(12) An opera company run in a businesslike way could make profit on box-office receipts.
True ☐ False ☐</p> |
|---|--|



Dept. of Better Mousetraps



From the World of Industry: an inflatable, portable, plastic, three-room house that folds into a package three feet square. It is supported by low air pressure from its combination air conditioning-heating unit, and is anchored by tubes of sand around the base . . . a portable warehouse, also supported by low air pressure, which is anchored by a water-filled ring, contains 64,000 cubic feet of storage space and folds into a package three by five feet . . . a man-made material called Borazon which is about as hard as a diamond and far more resistant to heat . . . a weed killer especially for truck farming that can be used on greens, corn, beans and salad crops . . . and a slide rule that will instantly figure the weight of almost any shaped object from known dimensions.

* * *

Mother's Day Special: a bathtub tray with a book rack, ash tray, cigarette box, mirror, a sponge and bath brush compartment and soap holder. In polished brass or chrome, it fits any size tub . . . a little Swedish blue-gray marble mortar and pestle for grinding herbs and spices . . . a natural-colored, full-grain leather belt that adjusts to size by moving the lacing through a double slide . . . and a slim, gold-filled lighter that's reliable and windproof.

In the Garden: a string of three lanterns, with shades of strong, translucent plastic, on 30 feet of rubber-covered cord to mount on trees, roofs or wires . . . a plastic mulch to spread over the soil and then slit open with a razor blade for the seedlings to grow through . . . and a garden chair cast in rust-proof aluminum rather than iron; it comes in several colors.

* * *

Junior Department: for the young entomologist, the Young Collector's Insect Kit, which includes a beetle jar, tweezers, pins, a spreading board, labels, fluid dropper, butterfly net and a small book, "The Adventure Book of Insects" . . . an umbrella tent on an aluminum frame with no center pole. It sports a zippered storm door, screen door, three insect-proof windows and an awning . . . for the young speculator, a stock market game that comes in regular and advanced versions . . . and a little girl's apron with adhesive-backed designs which she can stick on and remove at her pleasure.

* * *

Golfer's Gimmicks: for those who lose too many balls in water holes, a non-sinkable ball that meets PGA specifications . . . and a wrist scorer of chromium-finished metal that records strokes consecutively when its plunger is pressed. ■

